Office of Substance Abuse
Department of Health and Human Services

John E. Baldacci, Governor   Brenda M. Harvey, Commissioner

mydaus
Maine Youth Drug and Alcohol Use Survey

Technical Report
2008

Prevalence of Alcohol, Tobacco, and Other Drugs; Risk and Protective
Factors; Prohibited Behaviors; and Pro-social Behaviors
Among Students in Grades 6-12 in the State of Maine

Prepared by:

Pan Atlantic SMS Group
RESEARCH · STRATEGY · TRAINING

for

Office of Substance Abuse
Maine Department of Health and Human Services

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Acknowledgements

Everyone involved in this project would like to extend their thanks to the principals and superintendents who chose to participate in this survey, and to the teachers and school staff who supported this effort. But, most importantly, we would like to thank the students who took the time and effort to share their experiences with us. This report is our way of thanking all of you. We hope that you find the report useful.

The development and implementation of the 2008 Maine Youth Drug and Alcohol Use and Youth Tobacco Survey (MYDAUS/YTS) was a collaborative effort by the Maine Office of Substance Abuse (OSA) and the Maine Centers for Disease Control (Maine CDC) in the Department of Health and Human Services, the Social Development Research Group (SDRG) at the University of Washington, the Maine Center for Public Health, Pan Atlantic SMS Group, and Market Decisions. In addition to the Maine Office of Substance Abuse and the Maine Centers for Disease Control which oversaw the entire project, specific duties of the other agencies were as follows:

Pan Atlantic SMS Group
Patrick O. Murphy, President
5 Milk Street
Portland, ME 04101
- Responsible for all school recruitment and survey administration activities
- Created the final data file
- Produced this Technical Report and an Executive Summary brochure

Market Decisions
Curtis Mildner, President & Senior Consultant
One Park Square
85 E Street, P.O. Box 2890
South Portland, ME 04116
- Selected the school sample and weighted the data
- Responsible for data analysis and report production for the Maine CDC
- Produced the 2008 Local Summary Reports available on the MYDAUS website

The Social Development Research Group
University of Washington
9725 3rd Avenue NE, Suite 401
Seattle, WA 98115-2024
- Developed the core survey instrument as well as the syntax relating to survey validity testing
- Provided the risk and protective factor framework
- Developed the basic protocol for administering the survey

For further information about this project, contact:

Office of Substance Abuse, Information and Resource Center
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Phone: 1-800-499-0027   TTY/TDD: 1-800-606-0215
Or visit the Office of Substance Abuse's website at: www.maineosa.org

Table of Contents

List of Tables

List of Tables (continued)

I.   INTRODUCTION

A. History

Between 1993 and 1997, Maine was one of six states participating in the Diffusion Consortium Project, a study undertaken by the University of Washington for the purpose of developing research-based substance abuse strategies. Out of that collaboration came the Maine Youth Drug and Alcohol Use Survey (MYDAUS). The MYDAUS has been administered on even numbered years since 2000, during which time it has provided local data to participating schools and communities. In 2004, to ease the burden placed on schools by multiple surveys, the Office of Substance Abuse collaborated with the Maine Centers for Disease Control (Maine CDC) to create a combined Maine Youth Drug and Alcohol Use Survey and Youth Tobacco Survey (MYDAUS/YTS). This report presents the results of the MYDAUS/YTS that was administered in February, 2008, to 6th through 12th grade students in public and quasi-public[1] schools throughout the State of Maine. However, this report only presents the results of the MYDAUS questions and for convenience refers to the survey as the MYDAUS[2].

B. Purpose

The purpose of the MYDAUS is to identify patterns of alcohol, tobacco, and other drug use among middle and high school students in Maine, and to measure the prevalence of the underlying characteristics of a student's social environment which influence his/her decision whether or not to use substances or engage in other prohibited behaviors. These risk and protective factors are found at all social levels (domains): peer group, family, school and the greater community. For this reason, OSA strongly encourages school administrators to share their MYDAUS results with parents, community leaders, and the students themselves. Because MYDAUS identifies which specific risk factors are high, and which protective factors are low, communities are better able to focus limited resources on interventions which will have the most impact. And because the MYDAUS provides local results, it is an excellent source of data for Safe and Drug Free Schools and Communities Act applications. Once programs are chosen and implemented, the MYDAUS can be used to evaluate their effectiveness. Multiple strategies in multiple domains hold the most promise of success.

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[1] Private, non-sectarian schools with 60% or more publicly funded students.

[2] The results for **all** questions asked on the 2008 MYDAUS/YTS can be found on the MYDAUS/YTS website: www.maine.gov/maineosa/survey/home.php.   For additional information about the YTS data, contact the Partnership For A Tobacco-Free Maine (PTM) at 207-287-6027 or go to the PTM website at http://www.tobaccofreemaine.org.   The results in this report may differ somewhat from those available from Maine CDC because different methods were used to screen out surveys with dishonest answers.

I.   INTRODUCTION

C.   Administration

Although all eligible schools are invited to take the MYDAUS, not all schools or students choose to participate. Therefore, for the 2008 administration of the MYDAUS, we chose a random sample of schools that were strongly urged to participate in order to minimize the bias that non-participation could have on the results of the survey. The school response rate among sampled schools was 89%. (Please see Appendix A for a detailed description of the survey's methodology, including the sampling scheme.)

Table 1 shows the response rates by county for sampled and non-sampled schools combined. In all, there were 74,953 usable[1] surveys, representing 69.6% of the 107,693 total eligible students, and 77.3% of the 96,967 total students at participating schools. Participating students were from 340 of Maine's 419 eligible public schools; this resulted in a school response rate of 81.1%. The school response rates ranged from a low of 64.3% in Knox County to a high of 100% in Piscataquis County. The overall response rate for the 2008 MYDAUS was 62.7%[2]. The overall response rates for each county ranged from a low of 49.8% in Franklin County to a high of 80.6% in Piscataquis County.

Table 2 illustrates select demographic characteristics of the 2008 MYDAUS respondents: gender, grade, age, and race/ethnicity.

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[1] This figure excludes the students that were deemed to be "dishonest" based on the honesty profile that was run prior to data analysis (for more information on the honesty profile, please see Appendix A).

[2] This includes both sampled and "volunteer" schools; the school response rate (62.7%) = the school response rate (81.1%) x the student response rate (77.3%).

2

Table 1: School, Student, and Overall Response Rates for the MYDAUS: 2008.

County	Number of Schools (6-12)	Number of Participating Schools	School Response Rate	Number of Students in all Schools (6-12)	Number of Usable Surveys[1] (Unweighted)	Student Response Rate vs. Total Eligible	Number of Students in Participating Schools	Student Response Rate vs. Total in Participating Schools	Overall Response Rate
	1	2	3	4	5	6	7	8	9
Androscoggin	37	36	97.3%	8,541	6,308	73.9%	8,425	74.9%	72.3%
Aroostook	36	29	80.6%	5,878	4,515	76.8%	5,715	79.0%	63.6%
Cumberland	42	38	90.5%	22,248	16,548	74.4%	21,235	77.9%	70.5%
Franklin	14	9	64.3%	2,441	1,500	61.5%	1,935	77.5%	49.8%
Hancock	33	26	78.8%	4,016	3,002	74.8%	3,843	78.1%	61.5%
Kennebec	31	26	83.9%	9,767	5,810	59.5%	8,223	70.7%	59.3%
Knox	17	13	76.5%	2,576	1,833	71.2%	2,314	79.2%	60.6%
Lincoln	19	14	73.7%	2,924	2,149	73.5%	2,728	78.8%	58.0%
Oxford	21	16	76.2%	5,813	4,204	72.3%	5,594	75.2%	57.3%
Penobscot	43	31	72.1%	12,509	6,681	53.4%	8,645	77.3%	55.7%
Piscataquis	8	8	100.0%	1,650	1,330	80.6%	1,650	80.6%	80.6%
Sagadahoc	10	9	90.0%	3,152	2,468	78.3%	3,046	81.0%	72.9%
Somerset	22	15	68.2%	4,857	3,508	72.2%	4,365	80.4%	54.8%
Waldo	16	14	87.5%	2,587	1,908	73.8%	2,481	76.9%	67.3%
Washington	37	30	81.1%	2,581	1,741	67.5%	2,322	75.0%	60.8%
York	33	26	78.8%	16,153	11,448	70.9%	14,446	79.2%	62.4%
TOTAL	**419**	**340**	**81.1%**	**107,693**	**74,953**	**69.6%**	**96,967**	**77.3%**	**62.7%**

Sources: Columns 1, 4, and 7 – Maine Department of Education, 2008; Columns 2 and 5 – 2008 MYDAUS

Equations: Column 3 = Column 2 ÷ Column 1; Column 6 = Column 5 ÷ Column 4; Column 8 = Column 5 ÷ Column 7; Column 9 = Column 3 x Column 8

[1] This excludes the students that were deemed to be "dishonest" based on the honesty profile that was run (for more information on the honesty profile, please see Appendix A)

Table 2:   Demographic Characteristics of the MYDAUS Participants: 2008.

	Unweighted Number[1]	Unweighted Percent	Weighted Percent
TOTAL	74,953	100.0%	100.0%
GENDER			
Female	35,054	46.8%	45.3%
Male	33,228	44.3%	45.8%
Missing	6,671	8.9%	8.9%
GRADE IN SCHOOL			
6th grade	10,688	14.3%	12.9%
7th grade	11,555	15.4%	13.3%
8th grade	11,555	15.4%	13.3%
9th grade	11,013	14.7%	14.6%
10th grade	10,717	14.3%	15.3%
11th grade	9,816	13.1%	14.8%
12th grade	8,550	11.4%	14.0%
Missing	1,059	1.4%	1.9%
AGE (YEARS)			
11 or younger	5,656	7.5%	6.8%
12	10,694	14.3%	12.6%
13	11,403	15.2%	13.1%
14	11,053	14.7%	13.7%
15	10,926	14.6%	15.0%
16	10,467	14.0%	15.3%
17	9,320	12.4%	14.6%
18 or older	4,534	6.1%	7.5%
Missing	900	1.2%	1.4%
RACE/ETHNICITY			
White, not of Hispanic Origin	60,138	80.2%	80.5%
American Indian (includes Native American, Eskimo, and Aleut)	2,343	3.1%	3.0%
Black or African American	1,906	2.5%	2.6%
Asian or Pacific Islander	1,385	1.8%	1.8%
Spanish/Hispanic/Latino	1,244	1.7%	1.7%
Other	2,164	2.9%	2.9%
Missing	5,773	7.7%	7.6%

[1] This excludes the students that were deemed to be "dishonest" based on the honesty profile that was run (for more information on the honesty profile, please see Appendix A).

Note: Percentages might not add up to 100.0% due to rounding.

II. SUBSTANCE USE

In Maine, alcohol, tobacco (in the form of cigarettes), and marijuana were the substances most commonly used by students in grades 6 through 12 (see Table 3).

- Forty-four percent (44.3%) of students have had alcohol in their lifetime, 25.2% have smoked cigarettes, and 22.7% have used marijuana.

- In the month[1] before the survey, 25.3% of students had used alcohol, 12.7% had smoked marijuana, and 12.2% had smoked cigarettes.

- Approximately 13 percent (12.5%) of students reported having had five or more alcoholic drinks in a row in the two weeks preceding the survey; this is referred to as "binge drinking". Approximately one in four 12th grade students (26.2%) reported binge drinking in the two weeks before the survey.

Other commonly used substances included prescription drugs not specifically prescribed for the student, inhalants, other illegal drugs[2], and smokeless tobacco.

- Approximately one in ten students have used the following drugs in their lifetime: inhalants (10.8%), prescription drugs not prescribed for them (10.8%), smokeless tobacco (10.2%), and other illegal drugs (9.7%).

- In the month before the survey, 5.3% had used other illegal drugs, 5.2% of students had illegally used prescription drugs, 4.9% had used smokeless tobacco, and 4.0% had used inhalants.

The least commonly used substances by Maine youth were cocaine, LSD or other psychedelics, stimulants, MDMA (Ecstasy), and heroin.

- Less than five percent (4.2%) of Maine youth have used LSD or another psychedelic in their lifetime, and (3.8%) have used cocaine. While 2.9% of students have taken MDMA or Ecstasy in their lifetime, 2.6% have used stimulants and 1.7% have used heroin.

- In the month before the survey, 1.8% of students had used LSD or another psychedelic, 1.7% had used cocaine, 1.3% had used stimulants, 1.2% had taken MDMA or Ecstasy, and 1.0% had used heroin.

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[1] Please note that use of the phrases "past month" and "past 30 days" as they relate to student behaviors refers to the 30-day period prior to the administration of the survey.

[2] "Other illegal drugs" includes any illegal drugs not specifically referred to in the MYDAUS.

II.   SUBSTANCE USE

A.   Substance Use – Differences by Grade

Not surprisingly, for most substances prevalence rates increased with grade in school (see Table 3). This holds for both lifetime and past month use. There were several exceptions worth noting, however:

- Lifetime inhalant use peaked in the 8th (12.5%) and 9th (12.4%) grades.

- Inhalant use in the month preceding the survey was higher among middle school students than high school students. Prevalence rates for past month use peaked in the 8th grade (5.5%).

- Lifetime use of heroin and other illegal drugs as well as past month use of LSD, stimulants, and other illegal drugs all leveled off in the 11th grade. Past month use of Ecstasy and heroin began to level off in the 10th grade.

B.   Substance Use – Differences by Gender

The prevalence rates for male students and female students were statistically different for many of the substances listed in Table 3. The prevalence rates were higher[1] for male students than for female students for the following substances:

- ✓ Smokeless tobacco (lifetime and past month)
- ✓ Cigarettes (past month)
- ✓ Binge drinking (past two weeks)
- ✓ Marijuana (lifetime and past month)
- ✓ LSD (lifetime and past month)
- ✓ Cocaine (lifetime and past month)
- ✓ Ecstasy (lifetime and past month)
- ✓ Stimulants (lifetime and past month)
- ✓ Heroin (lifetime and past month)
- ✓ Prescription drugs[2] (past month)
- ✓ Other illegal drugs (lifetime and past month)

The prevalence rates were higher[1] for female students than for male students for the following substances:

- ✓ Alcohol (lifetime)
- ✓ Inhalants (lifetime)

There were no differences between males and females for the following substances:

- ✓ Cigarettes (lifetime)
- ✓ Alcohol (past month)
- ✓ Inhalants (past month)
- ✓ Prescription drugs[2] (lifetime)

[1] The probability of statistical difference was at least 99.0% for all substances listed.

[2] Prescription drugs not specifically prescribed for the student.

Table 3: **Prevalence of Lifetime & Past Month Substance Use among the Maine Student Population by Grade & Gender: 2008.**

		6th grade	7th grade	8th grade	9th grade	10th grade	11th grade	12th grade	Female	Male	State Average
Smokeless Tobacco	Lifetime	2.5	3.6	5.9	9.4	12.6	15.2	19.5	5.8	14.0	10.2
	30 day	1.4	1.6	2.8	4.6	5.9	7.4	9.6	2.6	7.0	4.9
Cigarettes	Lifetime	6.3	10.6	17.6	25.1	31.0	37.3	43.5	24.7	24.5	25.2
	30 day	2.1	3.7	6.8	12.4	14.7	19.3	23.6	11.4	12.4	12.2
Alcohol	Lifetime	13.3	19.9	32.7	45.9	55.8	63.7	71.0	44.1	42.8	44.3
	30 day	5.3	9.0	17.0	25.4	32.8	37.6	44.9	24.6	24.9	25.3
Binge drinking	Two weeks	1.8	2.8	6.5	11.0	15.9	20.3	26.2	11.1	13.0	12.5
Marijuana	Lifetime	1.9	4.1	10.0	20.2	30.8	39.8	45.6	21.1	22.8	22.7
	30 day	1.2	1.8	5.4	11.4	17.3	22.5	25.4	11.0	13.5	12.7
LSD	Lifetime	0.7	0.8	1.9	3.5	4.9	7.3	9.2	3.2	4.9	4.2
	30 day	0.7	0.4	1.1	1.7	2.2	2.8	3.0	1.3	2.2	1.8
Cocaine	Lifetime	0.9	1.3	2.2	3.1	4.5	6.0	7.9	3.3	4.2	3.8
	30 day	0.6	0.5	1.1	1.5	2.0	2.2	3.1	1.2	2.0	1.7
Ecstasy	Lifetime	0.6	0.6	1.4	2.6	3.7	4.4	5.9	2.5	3.1	2.9
	30 day	0.5	0.4	0.8	1.1	1.7	1.8	1.9	0.9	1.5	1.2
Inhalants	Lifetime	8.1	9.9	12.5	12.4	11.8	11.1	9.3	11.3	10.4	10.8
	30 day	4.0	4.6	5.5	4.8	3.4	3.0	2.6	4.0	4.1	4.0
Stimulants	Lifetime	0.7	0.8	1.5	2.5	3.2	4.0	4.5	2.3	2.7	2.6
	30 day	0.5	0.4	0.7	1.2	1.6	2.0	2.1	1.0	1.5	1.3
Heroin	Lifetime	0.8	0.8	1.3	1.5	1.9	2.3	2.4	1.4	1.8	1.7
	30 day	0.7	0.4	0.8	1.0	1.2	1.2	1.3	0.7	1.2	1.0
Prescription Drugs[1]	Lifetime	3.7	4.3	6.2	10.0	13.5	16.9	18.7	10.5	10.5	10.8
	30 day	1.8	1.9	3.0	5.1	6.6	8.1	8.9	4.9	5.4	5.2
Other illegal drugs	Lifetime	1.7	2.8	5.9	10.5	13.8	15.1	15.2	8.7	10.1	9.7
	30 day	1.0	1.5	3.2	5.7	7.6	8.2	8.4	4.4	5.9	5.3

Note: All numbers represent percent of students; selected columns are highlighted only to make the chart easier to read.

[1] Prescription drugs not specifically prescribed for the student.

II.   SUBSTANCE USE

C.   Substance Use – Differences by Gender within Grade

Table 4 shows the prevalence rates of the various substances for each gender, by grade. Listed below is an analysis of gender differences within each grade. Unless otherwise noted, prevalence rates between the two genders were considered to be statistically similar[1].

For Grade 6, the following prevalence rates were higher for male students than for female students: smokeless tobacco (lifetime and past month), cigarettes (lifetime and past month), alcohol (lifetime, past month, and binge drinking), and inhalants (lifetime and past month).

Among 7th grade students, males were more likely than females to have reported the use of smokeless tobacco (lifetime and past month), cigarettes (lifetime), alcohol (lifetime), marijuana (lifetime and past month), LSD (lifetime), and other illegal drugs (lifetime).

For Grade 8, the prevalence rates for inhalants (lifetime and past month) and prescription drugs[2] (lifetime and past month) were higher for females than for males. The following prevalence rates were higher for males than for females: smokeless tobacco (lifetime and past month) and marijuana (lifetime and past month).

Among 9th grade students, females had higher prevalence rates than males for the following substances: cigarettes (lifetime), alcohol (lifetime), and inhalants (lifetime and past month). The prevalence rates for the following substances were statistically higher among males than females in the 9th grade: smokeless tobacco (lifetime and past month), marijuana (past month), LSD (past month), and cocaine (past month).

In Grade 10, the prevalence rates for cigarettes (lifetime), alcohol (lifetime), and inhalants (lifetime) were higher for females than for males. The following prevalence rates were higher for males than for females: smokeless tobacco (lifetime and past month), binge drinking (past two weeks), marijuana (past month), LSD (lifetime and past month), cocaine (past month), Ecstasy (past month), stimulants (past month), and heroin (past month).

Among students in the 11th grade, females had higher prevalence rates than males for lifetime alcohol use. The prevalence rates for the following substances were statistically higher among males than females in the 11th grade: smokeless tobacco (lifetime and past month), cigarettes (past month), binge drinking (past two weeks), marijuana (lifetime and past month), LSD (lifetime and past month), cocaine (lifetime and past month), Ecstasy (lifetime and past month), stimulants (past month), heroin (past month), prescription drugs (past month), and other illegal drugs (lifetime and past month).

In Grade 12, the prevalence rate of lifetime alcohol use was higher for females than for males. The prevalence rates for all other substances were higher for males than for females.

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[1] The probability of statistical difference was at least 99.00% for all of the gender differences listed above.

[2] Prescription drugs not specifically prescribed for the student.

Table 4: Prevalence of Lifetime & Past Month Substance Use among the Maine Student Population by Gender Within Grade: 2008.

		6th grade		7th grade		8th grade		9th grade		10th grade		11th grade		12th grade		State Avg.
		F	M	F	M	F	M	F	M	F	M	F	M	F	M	
Smokeless Tobacco	Lifetime	1.4	3.6	2.3	4.8	4.0	7.6	6.0	12.9	7.9	16.9	8.8	22.3	9.5	29.4	10.2
	30 day	0.9	1.8	0.9	2.2	2.2	3.3	2.8	6.3	3.2	8.7	3.8	11.2	3.8	15.4	4.9
Cigarettes	Lifetime	5.1	7.4	9.5	11.2	17.7	17.4	26.2	23.4	33.0	28.5	36.4	38.1	41.9	45.1	25.2
	30 day	1.7	2.4	3.6	3.7	7.1	6.6	12.4	12.2	14.7	14.3	18.3	20.2	20.6	26.6	12.2
Alcohol	Lifetime	10.3	16.2	17.3	22.1	32.1	33.3	47.8	43.6	58.5	51.9	65.1	61.9	72.7	69.1	44.3
	30 day	4.5	5.9	8.4	9.4	17.9	16.0	26.2	24.2	32.8	31.9	36.2	38.7	42.8	47.0	25.3
Binge drinking	Two weeks	1.4	2.1	2.7	2.7	6.7	6.1	10.6	11.1	14.4	17.0	18.6	22.5	22.2	29.5	12.5
Marijuana	Lifetime	1.5	2.1	3.2	4.9	8.8	11.2	19.1	21.1	30.8	30.2	37.7	41.5	43.2	47.7	22.7
	30 day	1.0	1.3	1.4	2.2	4.7	6.0	10.2	12.3	16.0	18.4	20.6	24.5	21.2	29.5	12.7
LSD	Lifetime	0.7	0.8	0.6	1.1	1.9	1.9	3.1	3.7	4.3	5.5	5.8	9.0	5.6	12.6	4.2
	30 day	0.6	0.7	0.3	0.5	1.1	1.0	1.3	2.0	1.6	2.8	2.0	3.6	1.6	4.5	1.8
Cocaine	Lifetime	0.8	1.1	1.2	1.3	2.3	2.1	2.9	3.3	4.0	5.0	5.5	6.9	5.9	9.9	3.8
	30 day	0.5	0.7	0.4	0.7	1.1	1.1	1.1	1.8	1.4	2.6	1.7	2.7	2.3	4.1	1.7
Ecstasy	Lifetime	0.6	0.7	0.5	0.7	1.4	1.2	2.3	2.7	3.3	4.0	3.8	5.1	4.7	6.9	2.9
	30 day	0.4	0.5	0.3	0.4	0.8	0.7	0.9	1.3	1.2	2.2	1.4	2.4	1.1	2.6	1.2
Inhalants	Lifetime	7.2	9.1	9.2	10.4	13.6	11.4	14.3	10.4	13.2	10.6	12.2	10.4	8.3	10.2	10.8
	30 day	3.3	4.7	4.6	4.4	6.2	4.8	5.6	3.9	3.2	3.8	2.8	3.6	1.9	3.2	4.0
Stimulants	Lifetime	0.5	0.8	0.7	1.0	1.5	1.4	2.3	2.5	2.8	3.5	3.7	4.5	3.8	5.2	2.6
	30 day	0.4	0.6	0.3	0.5	0.6	0.7	1.0	1.2	1.2	2.1	1.5	2.6	1.6	2.6	1.3
Heroin	Lifetime	0.6	1.0	0.8	0.8	1.4	1.2	1.5	1.5	1.6	2.3	2.1	2.5	1.8	2.9	1.7
	30 day	0.6	0.8	0.4	0.3	0.6	0.9	0.8	1.1	0.8	1.8	0.8	1.6	0.9	1.6	1.0
Prescription Drugs[1]	Lifetime	3.6	3.9	4.3	4.2	6.8	5.4	10.6	9.2	13.9	12.8	15.8	17.5	16.9	20.4	10.8
	30 day	1.6	1.9	1.9	1.9	3.4	2.5	5.3	4.8	6.2	6.9	7.4	9.1	7.3	10.4	5.2
Other illegal drugs	Lifetime	1.3	1.8	2.2	3.2	5.4	6.3	10.3	10.5	14.2	13.4	14.0	16.3	11.6	18.6	9.7
	30 day	0.9	1.1	1.2	1.8	2.9	3.4	5.3	6.0	6.9	8.2	7.2	9.3	5.7	11.1	5.3

Notes: All numbers represent percent of students; selected columns are highlighted only to make the chart easier to read.

[1] Prescription drugs not specifically prescribed for the student.

II.   SUBSTANCE USE

D.   Substance Use – Differences by County

Table 5 illustrates that the counties with the highest prevalence rates of substance use are Lincoln, Piscataquis, and Sagadahoc counties.

Of all Maine counties, Lincoln County had among the top three highest prevalence rates for the following substances:

- Smokeless tobacco (past month)
- Cigarettes (lifetime)
- Alcohol (lifetime and past month)
- Binge drinking (past two weeks)
- Marijuana (past month)
- LSD (lifetime and past month)
- Cocaine (lifetime and past month)
- Ecstasy (lifetime and past month)
- Inhalants (lifetime and past month)
- Stimulants (lifetime and past month)
- Heroin (lifetime and past month)
- Prescription drugs[1] (lifetime and past month)
- Other illegal drugs (lifetime and past month)

Piscataquis County had among the top three highest prevalence rates for the following:

- Smokeless tobacco (lifetime and past month)
- Cigarettes (lifetime and past month)
- Alcohol (lifetime and past month)
- Binge drinking (past two weeks)
- Marijuana (lifetime and past month)
- LSD (past month)
- Cocaine (lifetime and past month)
- Inhalants (lifetime and past month)
- Stimulants (past month)
- Heroin (lifetime and past month)
- Prescription drugs[1] (lifetime and past month)
- Other illegal drugs (lifetime and past month)

The prevalence rates in Sagadahoc County were among the highest for the following:

- Cigarettes (past month)
- Alcohol (past month)
- Binge drinking (past two weeks)
- Marijuana (lifetime and past month)
- Cocaine (lifetime)
- Inhalants (lifetime)
- Heroin (lifetime)
- Prescription drugs[1] (lifetime and past month)
- Other illegal drugs (past month)

[1] Prescription drugs not specifically prescribed for the student.

10

Table 5: **Highest Prevalence of Lifetime & Past Month Substance Use among the Maine Student Population by County: 2008.**

		Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Smokeless Tobacco	Lifetime	9.8	9.3	8.3	10.9	10.7	7.9	10.6	12.7	13.0	11.6	14.8	10.6	11.7	12.3	14.4	9.6	10.2
	30 day	4.4	4.6	4.6	4.5	5.9	4.4	3.8	6.7	5.7	5.2	6.5	5.0	5.8	5.6	6.9	4.6	4.9
Cigarettes	Lifetime	23.5	28.7	21.4	25.9	28.1	22.2	27.3	29.6	29.4	26.0	36.8	28.0	29.0	25.1	31.8	23.8	25.2
	30 day	10.9	14.5	11.2	10.1	12.7	10.6	11.7	14.8	12.2	12.0	19.6	14.9	14.1	10.7	16.6	12.2	12.2
Alcohol	Lifetime	40.7	43.5	43.9	48.6	44.2	38.5	46.1	48.6	47.8	45.4	51.7	47.7	47.6	41.6	45.1	44.5	44.3
	30 day	22.3	25.1	26.8	27.1	24.7	22.6	24.7	30.2	27.4	24.2	29.1	27.6	26.2	23.8	25.2	24.9	25.3
Binge drinking	Two weeks	10.7	12.3	13.7	12.9	11.7	11.6	11.7	15.5	13.8	11.4	15.6	14.7	12.6	11.1	14.3	11.5	12.5
Marijuana	Lifetime	22.5	18.2	23.2	25.9	22.4	20.7	25.0	25.8	25.3	20.9	26.8	26.9	23.5	21.2	21.8	22.9	22.7
	30 day	11.9	8.9	13.7	14.1	11.5	11.5	14.8	15.5	14.2	11.2	15.2	15.4	13.1	11.6	13.1	12.9	12.7
LSD	Lifetime	4.3	3.3	4.4	4.3	3.9	4.9	4.0	4.9	3.6	4.4	4.4	4.4	4.2	3.6	4.2	4.0	4.2
	30 day	1.9	1.7	1.9	1.6	1.7	2.3	1.8	2.2	1.3	1.6	2.6	1.6	2.1	2.2	1.5	1.5	1.8
Cocaine	Lifetime	3.8	3.7	4.0	3.6	3.3	3.5	4.4	4.9	3.4	3.6	4.8	5.1	4.1	4.1	4.0	3.7	3.8
	30 day	1.7	1.3	2.1	1.7	1.5	1.8	2.3	2.6	1.4	1.2	2.1	1.7	1.8	1.3	1.5	1.5	1.7
Ecstasy	Lifetime	2.9	2.7	3.2	3.7	2.6	2.5	3.5	3.3	2.4	3.0	2.9	3.1	3.3	2.6	2.4	2.7	2.9
	30 day	1.4	1.2	1.6	1.6	1.1	1.1	1.6	1.8	0.9	1.1	1.5	0.9	1.3	1.3	1.2	0.9	1.2
Inhalants	Lifetime	11.7	9.9	10.0	10.4	10.5	9.5	12.2	11.8	11.4	11.3	11.8	13.4	11.5	11.2	10.7	11.1	10.8
	30 day	4.3	3.7	3.7	3.2	4.0	3.9	4.9	4.8	4.3	4.0	4.6	3.9	4.0	4.2	4.1	4.0	4.0
Stimulants	Lifetime	2.7	2.9	2.6	2.6	2.4	2.6	2.3	3.3	2.3	2.3	2.4	2.7	2.9	2.6	2.6	2.5	2.6
	30 day	1.5	1.3	1.5	1.1	1.1	1.4	1.1	1.9	1.3	0.9	1.7	1.2	1.3	1.5	0.8	1.1	1.3
Heroin	Lifetime	1.8	1.7	1.8	1.1	1.6	1.6	1.6	2.6	1.7	1.2	2.5	1.9	1.8	1.7	1.7	1.4	1.7
	30 day	1.1	0.8	1.2	0.6	1.0	1.2	1.2	1.9	0.9	0.7	1.3	1.1	0.9	0.6	1.2	0.7	1.0
Prescription Drugs [1]	Lifetime	11.7	8.7	10.6	10.0	10.3	9.8	10.6	12.8	11.2	10.5	14.1	13.8	11.7	9.6	7.6	11.6	10.8
	30 day	5.7	4.1	5.2	4.7	4.9	5.0	4.8	7.1	5.1	5.0	7.1	7.4	5.4	5.3	3.5	5.4	5.2
Other illegal drugs	Lifetime	9.6	8.1	9.5	11.0	8.8	8.6	9.1	11.8	10.7	9.9	13.5	10.8	11.0	9.3	10.4	9.4	9.7
	30 day	5.0	4.2	5.4	6.1	4.7	4.6	5.0	7.6	6.0	5.5	7.7	6.3	6.1	5.1	5.6	4.9	5.3

Note: All numbers represent percent of students.

■ Represents the county with the highest use rate in each category   ▨ Represents the counties with the second and third highest use rates in each category

[1] Prescription drugs not specifically prescribed for the student.

Table 6:   Lowest Prevalence of Lifetime & Past Month Substance Use among the Maine Student Population by County: 2008.

		Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Smokeless Tobacco	Lifetime	9.8	9.3	8.3	10.9	10.7	7.9	10.6	12.7	13.0	11.6	14.8	10.6	11.7	12.3	14.4	9.6	10.2
	30 day	4.4	4.6	4.6	4.5	5.9	4.4	3.8	6.7	5.7	5.2	6.5	5.0	5.8	5.6	6.9	4.6	4.9
Cigarettes	Lifetime	23.5	28.7	21.4	25.9	28.1	22.2	27.3	29.6	29.4	26.0	36.8	28.0	29.0	25.1	31.8	23.8	25.2
	30 day	10.9	14.5	11.2	10.1	12.7	10.6	11.7	14.8	12.2	12.0	19.6	14.9	14.1	10.7	16.6	12.2	12.2
Alcohol	Lifetime	40.7	43.5	43.9	48.6	44.2	38.5	46.1	48.6	47.8	45.4	51.7	47.7	47.6	41.6	45.1	44.5	44.3
	30 day	22.3	25.1	26.8	27.1	24.7	22.6	24.7	30.2	27.4	24.2	29.1	27.6	26.2	23.8	25.2	24.9	25.3
Binge drinking	Two weeks	10.7	12.3	13.7	12.9	11.7	11.6	11.7	15.5	13.8	11.4	15.6	14.7	12.6	11.1	14.3	11.5	12.5
Marijuana	Lifetime	22.5	18.2	23.2	25.9	22.4	20.7	25.0	25.8	25.3	20.9	26.8	26.9	23.5	21.2	21.8	22.9	22.7
	30 day	11.9	8.9	13.7	14.1	11.5	11.5	14.8	15.5	14.2	11.2	15.2	15.4	13.1	11.6	13.1	12.9	12.7
LSD	Lifetime	4.3	3.3	4.4	4.3	3.9	4.9	4.0	4.9	3.6	4.4	4.4	4.4	4.2	3.6	4.2	4.0	4.2
	30 day	1.9	1.7	1.9	1.6	1.7	2.3	1.8	2.2	1.3	1.6	2.6	1.6	2.1	2.2	1.5	1.5	1.8
Cocaine	Lifetime	3.8	3.7	4.0	3.6	3.3	3.5	4.4	4.9	3.4	3.6	4.8	5.1	4.1	4.1	4.0	3.7	3.8
	30 day	1.7	1.3	2.1	1.7	1.5	1.8	2.3	2.6	1.4	1.2	2.1	1.7	1.8	1.3	1.5	1.5	1.7
Ecstasy	Lifetime	2.9	2.7	3.2	3.7	2.6	2.5	3.5	3.3	2.4	3.0	2.9	3.1	3.3	2.6	2.4	2.7	2.9
	30 day	1.4	1.2	1.6	1.6	1.1	1.1	1.6	1.8	0.9	1.1	1.5	0.9	1.3	1.3	1.2	0.9	1.2
Inhalants	Lifetime	11.7	9.9	10.0	10.4	10.5	9.5	12.2	11.8	11.4	11.3	11.8	13.4	11.5	11.2	10.7	11.1	10.8
	30 day	4.3	3.7	3.7	3.2	4.0	3.9	4.9	4.8	4.3	4.0	4.6	3.9	4.0	4.2	4.1	4.0	4.0
Stimulants	Lifetime	2.7	2.9	2.6	2.6	2.4	2.6	2.3	3.3	2.3	2.3	2.4	2.7	2.9	2.6	2.6	2.5	2.6
	30 day	1.5	1.3	1.5	1.1	1.1	1.4	1.1	1.9	1.3	0.9	1.7	1.2	1.3	1.5	0.8	1.1	1.3
Heroin	Lifetime	1.8	1.7	1.8	1.1	1.6	1.6	1.6	2.6	1.7	1.2	2.5	1.9	1.8	1.7	1.7	1.4	1.7
	30 day	1.1	0.8	1.2	0.6	1.0	1.2	1.2	1.9	0.9	0.7	1.3	1.1	0.9	0.6	1.2	0.7	1.0
Prescription Drugs [1]	Lifetime	11.7	8.7	10.6	10.0	10.3	9.8	10.6	12.8	11.2	10.5	14.1	13.8	11.7	9.6	7.6	11.6	10.8
	30 day	5.7	4.1	5.2	4.7	4.9	5.0	4.8	7.1	5.1	5.0	7.1	7.4	5.4	5.3	3.5	5.4	5.2
Other illegal drugs	Lifetime	9.6	8.1	9.5	11.0	8.8	8.6	9.1	11.8	10.7	9.9	13.5	10.8	11.0	9.3	10.4	9.4	9.7
	30 day	5.0	4.2	5.4	6.1	4.7	4.6	5.0	7.6	6.0	5.5	7.7	6.3	6.1	5.1	5.6	4.9	5.3

Note: All numbers represent percent of students.

■ Represents the county with the lowest use rate in each category   ■ Represents the counties with the second and third lowest use rates in each category

[1] Prescription drugs not specifically prescribed for the student.

II.   SUBSTANCE USE

Table 6 illustrates that the counties with the lowest prevalence rates of substance use are Kennebec, Aroostook, Penobscot, and Waldo counties.

Of all Maine counties, Kennebec County had among the top three lowest prevalence rates for the following substances:

- Smokeless tobacco (lifetime and past month)
- Cigarettes (lifetime and past month)
- Alcohol (lifetime and past month)
- Marijuana (lifetime and past month)
- Cocaine (lifetime)
- Ecstasy (lifetime)
- Inhalants (lifetime)
- Other illegal drugs (lifetime and past month)

Aroostook County had among the lowest prevalence rates for the following substances:

- Smokeless tobacco (lifetime)
- Marijuana (lifetime and past month)
- LSD (lifetime)
- Cocaine (past month)
- Inhalants (lifetime and past month)
- Prescription drugs[1] (lifetime and past month)
- Other illegal drugs (lifetime and past month)

Students in Penobscot County reported among the lowest prevalence rates for the following substances:

- Binge drinking (past two weeks)
- Marijuana (lifetime and past month)
- Cocaine (past month)
- Stimulants (lifetime and past month)
- Heroin (lifetime and past month)

Waldo County had among the lowest prevalence rates for the following substances:

- Cigarettes (past month)
- Alcohol (lifetime and past month)
- Binge drinking (past two weeks)
- LSD (lifetime)
- Cocaine (past month)
- Heroin (past month)
- Prescription drugs[1] (lifetime)

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[1] Prescription drugs not specifically prescribed for the student.

II.   SUBSTANCE USE

Table 7:   Counties with the Highest and Lowest Prevalence Rates of Substance Use: 2008.

	Number of Times County Ranked 1st, 2nd, or 3rd for Highest Prevalence Rates			Number of Times County Ranked 1st, 2nd, or 3rd for Lowest Prevalence Rates		
	1st	2nd or 3rd	Total[1]	1st	2nd or 3rd	Total[1]
Androscoggin	0	0	0	2	3	5
Aroostook	0	1	1	5	6	11
Cumberland	0	2	2	1	3	4
Franklin	1	4	5	4	1	5
Hancock	0	0	0	1	3	4
Kennebec	1	1	2	3	10	13
Knox	1	4	5	2	0	2
Lincoln	9	13	22	0	0	0
Oxford	0	1	1	4	2	6
Penobscot	0	0	0	2	6	8
Piscataquis	9	12	21	0	0	0
Sagadahoc	4	7	11	1	0	1
Somerset	0	3	3	0	0	0
Waldo	0	1	1	1	7	8
Washington	1	3	4	4	1	5
York	0	0	0	1	3	4

[1] The highest possible number per county is 25, as there were 25 different prevalence rates included in this analysis.

II. SUBSTANCE USE

E.   Substance Use – Differences by Year, 1995-2008

The MYDAUS was administered previously in 1995, 1996, 1998/9, 2000, 2002, 2004, and 2006. These earlier data provide important comparisons to the 2008 results for the purpose of monitoring any changes in drug use behaviors over time among Maine middle and high school students (see Tables 8 and 9). Although such comparisons can be useful, it is important to note that there have been significant changes in methodology throughout the history of the survey that may have impacted the results; therefore, any comparisons between the data should be made with caution (see Appendix A for a discussion of differences in survey methodologies).

Despite these caveats, it is useful to note rate changes over the past several years:

Alcohol – Lifetime Use

- The overall lifetime alcohol use rate among Maine's 6th to 12th grade students has dropped consistently over the past 13 years – from 70.7% in 1995 to 44.3% in 2008. The current finding represents a 3.4 percentage point drop from 2006 (47.7%).

- Since 2006, the largest decreases occurred among 10th grade (-5.5 percentage points) and 11th grade (also -5.5 percentage points).

Alcohol – Past month Use

- After an initial decline from 1995 (38.0%) to 1998/9 (31.1%), the average rate of past month alcohol use among students in grades 6 through 12 leveled off until 2008, when the rate dropped to 25.3%.

- Since 2006, the largest decreases in past month alcohol use was found among 11th grade (-7.0 percentage points), 10th grade (-5.4 percentage points), and 9th grade (-5.4 percentage points) students.

Marijuana – Lifetime Use

- After holding steady since 1995, the prevalence rate of lifetime marijuana use decreased from 29.8% in 2002 to a new low of 22.7% in 2008.

- Since 2006, the largest decreases took place among 11th grade (-5.3 percentage points), 12th grade (-4.1 percentage points), and 10th grade (-4.0 percentage points) students.

Marijuana – Past month Use

- Since 1995, there has been a significant decrease in the past month use of marijuana (from 19.4% in 1995 to the current figure of 12.7%).

- Reductions of past month use of marijuana were seen across all grades when compared with 1995 rates, especially among 9th graders (-16.7 percentage points).

Table 8:   Prevalence of Lifetime Substance Use among the Maine Student Population in Grades 6-12: 1995-2008.

	LIFETIME USE								Percentage Point Change	
	1995	1996	1998/9	2000	2002	2004	2006	2008	Since 1995	Since 2006
Alcohol										
6th grade	40.5%	36.8%	23.8%	23.1%	19.6%	17.9%	15.2%	13.3%	-27.2	-1.9
7th grade	60.3%	59.1%	35.1%	34.9%	30.3%	27.2%	24.1%	19.9%	-40.4	-4.2
8th grade	72.4%	69.6%	52.1%	50.1%	44.9%	42.7%	36.7%	32.7%	-39.7	-4.0
9th grade	78.4%	77.2%	62.9%	63.1%	57.1%	54.9%	50.1%	45.9%	-32.5	-4.2
10th grade	81.3%	84.3%	70.7%	72.1%	67.9%	64.8%	61.3%	55.8%	-25.5	-5.5
11th grade	82.6%	85.8%	79.4%	77.9%	74.8%	72.0%	69.2%	63.7%	-18.9	-5.5
12th grade	88.8%	87.8%	84.2%	82.2%	79.3%	75.6%	73.8%	71.0%	-17.8	-2.8
Total	70.7%	68.0%	57.6%	56.9%	53.5%	50.7%	47.7%	44.3%	-26.4	-3.4
Marijuana										
6th grade	4.6%	4.4%	2.2%	3.9%	3.2%	2.6%	1.9%	1.9%	-2.7	0.0
7th grade	12.8%	15.2%	6.6%	8.5%	8.6%	6.6%	5.0%	4.1%	-8.7	-0.9
8th grade	26.0%	26.3%	17.2%	17.3%	18.4%	14.8%	12.3%	10.0%	-16.0	-2.3
9th grade	40.1%	38.3%	31.2%	31.7%	30.1%	27.4%	24.0%	20.2%	-19.9	-3.8
10th grade	41.2%	50.1%	40.8%	43.3%	42.4%	39.4%	34.8%	30.8%	-10.4	-4.0
11th grade	46.3%	50.0%	50.6%	50.5%	50.9%	47.3%	45.1%	39.8%	-6.5	-5.3
12th grade	56.8%	53.0%	57.7%	55.3%	55.3%	50.6%	49.7%	45.6%	-11.2	-4.1
Total	30.3%	29.6%	28.6%	29.3%	29.8%	26.9%	25.0%	22.7%	-7.6	-2.3
Cigarettes										
6th grade	24.4%	22.1%	14.1%	16.5%	11.5%	9.2%	7.9%	6.3%	-18.1	-1.6
7th grade	38.4%	39.1%	25.8%	25.9%	19.1%	16.1%	13.1%	10.6%	-27.8	-2.5
8th grade	54.0%	51.4%	40.6%	34.7%	30.6%	25.5%	21.6%	17.6%	-36.4	-4.0
9th grade	61.6%	58.9%	49.5%	46.0%	39.2%	31.9%	30.3%	25.1%	-36.5	-5.2
10th grade	65.1%	67.7%	57.2%	55.1%	47.0%	38.9%	36.9%	31.0%	-34.1	-5.9
11th grade	64.4%	69.3%	61.3%	60.8%	53.6%	43.7%	42.2%	37.3%	-27.1	-4.9
12th grade	73.3%	67.7%	68.1%	63.8%	57.3%	46.8%	46.3%	43.5%	-29.8	-2.8
Total	52.8%	50.2%	44.6%	42.6%	36.9%	30.3%	28.7%	25.2%	-27.6	-3.5
Inhalants										
6th grade	12.4%	12.9%	11.7%	10.8%	9.7%	10.1%	9.1%	8.1%	-4.3	-1.0
7th grade	21.5%	23.1%	14.1%	13.4%	13.4%	11.5%	11.3%	9.9%	-11.6	-1.4
8th grade	29.6%	23.4%	19.6%	14.5%	15.0%	15.3%	14.0%	12.5%	-17.1	-1.5
9th grade	21.5%	22.0%	16.6%	14.4%	12.8%	14.1%	15.0%	12.4%	-9.1	-2.6
10th grade	20.4%	22.2%	15.5%	13.9%	11.7%	12.0%	13.4%	11.8%	-8.6	-1.6
11th grade	18.0%	15.5%	14.0%	12.1%	11.5%	11.1%	11.9%	11.1%	-6.9	-0.8
12th grade	16.8%	13.8%	14.1%	12.8%	10.6%	9.3%	9.1%	9.3%	-7.5	0.2
Total	20.8%	19.6%	15.2%	13.2%	12.2%	12.0%	12.2%	10.8%	-10.0	-1.4
Cocaine										
6th grade	1.4%	2.4%	1.4%	1.4%	1.3%	1.1%	1.0%	0.9%	-0.5	-0.1
7th grade	2.9%	4.2%	1.6%	2.0%	2.4%	1.7%	1.5%	1.3%	-1.6	-0.2
8th grade	5.7%	5.6%	3.3%	3.8%	3.9%	3.1%	2.7%	2.2%	-3.5	-0.5
9th grade	5.1%	5.5%	4.6%	4.9%	4.2%	4.3%	4.0%	3.1%	-2.0	-0.9
10th grade	5.9%	6.9%	5.3%	6.0%	5.9%	6.0%	5.0%	4.5%	-1.4	-0.5
11th grade	4.8%	4.3%	6.3%	6.7%	7.5%	7.7%	7.7%	6.0%	1.2	-1.7
12th grade	10.9%	5.1%	7.3%	8.0%	8.3%	8.6%	8.7%	7.9%	-3.0	-0.8
Total	4.9%	4.7%	4.2%	4.6%	4.8%	4.6%	4.5%	3.8%	-1.1	-0.7

16

Table 8: Prevalence of Lifetime Substance Use among the Maine Student Population in Grades 6-12: 1995-2008. (Continued)

	LIFETIME USE								Percentage Point Change	
	1995	1996	1998/9	2000	2002	2004	2006	2008	Since 1995	Since 2006
LSD/Psychedelics										
6th grade	1.9%	1.1%	1.0%	1.1%	0.9%	0.7%	0.6%	0.7%	-1.2	0.1
7th grade	4.0%	5.0%	1.2%	1.8%	2.0%	1.2%	0.9%	0.8%	-3.2	-0.1
8th grade	9.0%	8.1%	3.3%	4.1%	4.0%	2.9%	2.1%	1.9%	-7.1	-0.2
9th grade	11.5%	10.0%	7.5%	6.9%	5.3%	4.4%	4.0%	3.5%	-8.0	-0.5
10th grade	10.2%	15.9%	9.4%	11.1%	7.5%	6.4%	5.5%	4.9%	-5.3	-0.6
11th grade	14.5%	13.5%	13.4%	13.3%	10.5%	7.6%	7.7%	7.3%	-7.2	-0.4
12th grade	23.0%	15.0%	16.2%	17.2%	11.4%	8.8%	7.9%	9.2%	-13.8	1.3
Total	9.7%	8.6%	7.2%	7.7%	5.9%	4.6%	4.2%	4.2%	-5.5	0.0
MDMA/Ecstasy										
6th grade	N/A	N/A	N/A	N/A	0.8%	0.7%	0.5%	0.6%	N/A	0.1
7th grade	N/A	N/A	N/A	N/A	2.0%	1.1%	0.9%	0.6%	N/A	-0.3
8th grade	N/A	N/A	N/A	N/A	4.4%	2.9%	2.0%	1.4%	N/A	-0.6
9th grade	N/A	N/A	N/A	N/A	6.2%	3.8%	3.8%	2.6%	N/A	-1.2
10th grade	N/A	N/A	N/A	N/A	8.5%	5.1%	4.2%	3.7%	N/A	-0.5
11th grade	N/A	N/A	N/A	N/A	11.1%	6.6%	5.1%	4.4%	N/A	-0.7
12th grade	N/A	N/A	N/A	N/A	12.5%	7.3%	5.8%	5.9%	N/A	0.1
Total	N/A	N/A	N/A	N/A	6.5%	3.9%	3.3%	2.9%	N/A	-0.4
Heroin										
6th grade	N/A	N/A	N/A	N/A	0.9%	0.7%	0.6%	0.8%	N/A	0.2
7th grade	N/A	N/A	N/A	N/A	1.8%	0.9%	1.0%	0.8%	N/A	-0.2
8th grade	N/A	N/A	N/A	N/A	2.5%	1.8%	1.6%	1.3%	N/A	-0.3
9th grade	N/A	N/A	N/A	N/A	2.5%	2.3%	2.0%	1.5%	N/A	-0.5
10th grade	N/A	N/A	N/A	N/A	2.8%	2.9%	2.0%	1.9%	N/A	-0.1
11th grade	N/A	N/A	N/A	N/A	3.6%	3.0%	2.7%	2.3%	N/A	-0.4
12th grade	N/A	N/A	N/A	N/A	3.4%	2.5%	2.7%	2.4%	N/A	-0.3
Total	N/A	N/A	N/A	N/A	2.5%	2.0%	1.8%	1.7%	N/A	-0.1
Prescription Drugs[1]										
6th grade	N/A	N/A	N/A	N/A	N/A	7.2%	3.5%	3.7%	N/A	0.2
7th grade	N/A	N/A	N/A	N/A	N/A	8.9%	4.6%	4.3%	N/A	-0.3
8th grade	N/A	N/A	N/A	N/A	N/A	13.2%	7.2%	6.2%	N/A	-1.0
9th grade	N/A	N/A	N/A	N/A	N/A	17.5%	11.9%	10.0%	N/A	-1.9
10th grade	N/A	N/A	N/A	N/A	N/A	22.1%	15.7%	13.5%	N/A	-2.2
11th grade	N/A	N/A	N/A	N/A	N/A	24.6%	19.5%	16.9%	N/A	-2.6
12th grade	N/A	N/A	N/A	N/A	N/A	22.3%	19.7%	18.7%	N/A	-1.0
Total	N/A	N/A	N/A	N/A	N/A	16.6%	12.0%	10.8%	N/A	-1.2
Stimulants										
6th grade	N/A	N/A	N/A	1.2%	0.8%	0.7%	0.7%	0.7%	N/A	0.0
7th grade	N/A	N/A	N/A	2.5%	1.5%	1.1%	1.1%	0.8%	N/A	-0.3
8th grade	N/A	N/A	N/A	5.7%	3.2%	2.4%	2.0%	1.5%	N/A	-0.5
9th grade	N/A	N/A	N/A	8.7%	4.3%	3.8%	3.5%	2.5%	N/A	-1.0
10th grade	N/A	N/A	N/A	10.9%	5.6%	5.7%	4.2%	3.2%	N/A	-1.0
11th grade	N/A	N/A	N/A	11.9%	7.8%	6.5%	5.5%	4.0%	N/A	-1.5
12th grade	N/A	N/A	N/A	14.6%	7.2%	6.4%	5.3%	4.5%	N/A	-0.8
Total	N/A	N/A	N/A	7.8%	4.4%	3.8%	3.3%	2.6%	N/A	-0.7

[1] Prescription drugs not specifically prescribed for the student. In the 2002 MYDAUS, OxyContin use was asked separately; therefore, the data are not comparable. In 2006, examples of prescription drugs commonly misused were added to the survey questions, which could have influenced the reported decrease in use.
[2] There was a slight wording difference in the stimulant question in the 2002-2008 surveys versus the 2000 survey (see p.22).

17

Table 9:   Prevalence of Past Month Substance Use among the Maine Student Population in Grades 6-12: 1995-2008.

	PREVIOUS 30 DAY USE								Percentage Point Change	
	1995	1996	1998/9	2000	2002	2004	2006	2008	Since 1995	Since 2006
Alcohol										
6th grade	11.4%	9.6%	7.7%	8.1%	7.0%	6.7%	5.9%	5.3%	-6.1	-0.6
7th grade	23.6%	25.4%	14.4%	16.1%	12.7%	12.1%	11.2%	9.0%	-14.6	-2.2
8th grade	36.4%	35.6%	25.2%	24.8%	22.9%	22.4%	20.5%	17.0%	-19.4	-3.5
9th grade	45.0%	43.7%	34.4%	34.6%	32.1%	32.5%	30.8%	25.4%	-19.6	-5.4
10th grade	49.6%	51.0%	39.5%	41.5%	38.4%	40.3%	38.2%	32.8%	-16.8	-5.4
11th grade	52.7%	52.0%	47.4%	43.4%	44.8%	45.2%	44.6%	37.6%	-15.1	-7.0
12th grade	60.7%	59.1%	53.2%	50.6%	48.4%	49.2%	49.1%	44.9%	-15.8	-4.2
Total	38.0%	35.7%	31.1%	30.8%	29.5%	29.7%	29.0%	25.3%	-12.7	-3.7
Marijuana										
6th grade	2.3%	1.7%	1.2%	2.2%	1.4%	1.4%	1.0%	1.2%	-1.1	0.2
7th grade	7.4%	8.6%	3.2%	4.4%	4.2%	3.4%	2.4%	1.8%	-5.6	-0.6
8th grade	16.0%	17.3%	8.2%	10.0%	10.6%	7.9%	6.5%	5.4%	-10.6	-1.1
9th grade	28.1%	21.1%	18.5%	16.5%	17.0%	15.6%	13.7%	11.4%	-16.7	-2.3
10th grade	27.9%	33.2%	22.7%	23.7%	24.2%	22.5%	20.4%	17.3%	-10.6	-3.1
11th grade	28.9%	30.5%	28.5%	25.7%	29.2%	25.8%	25.5%	22.5%	-6.4	-3.0
12th grade	35.8%	28.6%	30.4%	29.3%	28.4%	26.8%	27.2%	25.4%	-10.4	-1.8
Total	19.4%	17.7%	15.7%	15.6%	16.5%	14.8%	14.1%	12.7%	-6.7	-1.4
Cigarettes[1]										
6th grade	6.1%	5.6%	3.3%	4.0%	2.8%	3.1%	2.4%	2.1%	-4.0	-0.3
7th grade	15.4%	17.7%	8.2%	8.4%	5.5%	5.9%	4.7%	3.7%	-11.7	-1.0
8th grade	23.9%	23.5%	13.6%	13.1%	11.5%	10.8%	9.0%	6.8%	-17.1	-2.2
9th grade	31.8%	29.3%	21.2%	18.2%	15.1%	15.6%	14.7%	12.4%	-19.4	-2.3
10th grade	32.5%	37.1%	25.2%	23.1%	19.4%	19.2%	18.0%	14.7%	-17.8	-3.3
11th grade	34.5%	39.0%	30.9%	26.3%	23.9%	22.2%	21.7%	19.3%	-15.2	-2.4
12th grade	40.6%	33.2%	35.8%	30.4%	26.1%	24.8%	24.3%	23.6%	-17.0	-0.7
Total	25.1%	24.2%	19.3%	17.2%	14.9%	14.6%	13.8%	12.2%	-12.9	-1.6
Inhalants										
6th grade	6.0%	6.6%	5.6%	4.4%	4.8%	5.3%	4.9%	4.0%	-2.0	-0.9
7th grade	11.0%	11.9%	5.8%	6.6%	6.3%	6.1%	5.5%	4.6%	-6.4	-0.9
8th grade	16.6%	11.4%	8.3%	6.5%	6.8%	7.6%	7.1%	5.5%	-11.1	-1.6
9th grade	7.2%	8.9%	5.9%	4.8%	4.4%	5.7%	5.8%	4.8%	-2.4	-1.0
10th grade	5.3%	6.3%	3.8%	3.7%	3.7%	4.0%	4.7%	3.4%	-1.9	-1.3
11th grade	5.0%	4.2%	2.6%	2.8%	2.8%	3.3%	3.2%	3.0%	-2.0	-0.2
12th grade	4.3%	2.5%	2.7%	2.4%	2.7%	2.1%	2.3%	2.6%	-1.7	0.3
Total	8.7%	8.3%	5.1%	4.5%	4.5%	4.9%	4.8%	4.0%	-4.7	-0.8
Cocaine										
6th grade	0.8%	0.6%	0.7%	0.6%	0.7%	0.5%	0.5%	0.6%	-0.2	0.1
7th grade	1.6%	1.4%	0.6%	1.0%	1.2%	0.7%	0.8%	0.5%	-1.1	-0.3
8th grade	2.3%	1.9%	1.2%	2.0%	2.1%	1.5%	1.1%	1.1%	-1.2	0.0
9th grade	2.5%	2.5%	1.7%	1.8%	1.7%	1.9%	2.0%	1.5%	-1.0	-0.5
10th grade	2.0%	1.0%	1.4%	1.8%	2.4%	2.6%	1.9%	2.0%	0.0	0.1
11th grade	1.5%	1.0%	1.7%	2.3%	3.1%	3.1%	2.8%	2.2%	0.7	-0.6
12th grade	2.3%	2.3%	1.6%	2.6%	3.1%	3.6%	3.3%	3.1%	0.8	-0.2
Total	1.9%	1.5%	1.3%	1.7%	2.0%	2.0%	1.8%	1.7%	-0.2	-0.1

[1] Wording of past month cigarette use was slightly different in the MYDAUS surveys prior to 2004 (see footnote page 20).

Table 9: **Prevalence of Past Month Substance Use among the Maine Student Population in Grades 6-12: 1995-2008. (Continued)**

	PREVIOUS 30 DAY USE								Percentage Point Change	
	1995	1996	1998/9	2000	2002	2004	2006	2008	Since 1995	Since 2006
LSD/Psychedelics										
6th grade	1.2%	0.4%	0.6%	0.6%	0.7%	0.6%	0.4%	0.7%	-0.5	0.3
7th grade	2.2%	2.5%	0.8%	1.2%	1.2%	0.8%	0.6%	0.4%	-1.8	-0.2
8th grade	3.6%	4.0%	1.6%	2.1%	2.3%	1.6%	1.2%	1.1%	-2.5	-0.1
9th grade	6.6%	4.8%	3.6%	3.2%	2.5%	2.4%	2.0%	1.7%	-4.9	-0.3
10th grade	4.8%	6.2%	3.5%	3.8%	2.9%	3.2%	2.4%	2.2%	-2.6	-0.2
11th grade	5.7%	5.1%	4.5%	4.5%	3.7%	3.1%	3.2%	2.8%	-2.9	-0.4
12th grade	6.8%	5.2%	5.0%	4.4%	2.6%	3.2%	3.0%	3.0%	-3.8	0.0
Total	4.2%	3.7%	2.7%	2.8%	2.3%	2.2%	1.9%	1.8%	-2.4	-0.1
MDMA/Ecstasy										
6th grade	N/A	N/A	N/A	N/A	0.5%	0.4%	0.3%	0.5%	N/A	0.2
7th grade	N/A	N/A	N/A	N/A	1.1%	0.6%	0.5%	0.4%	N/A	-0.1
8th grade	N/A	N/A	N/A	N/A	2.6%	1.4%	1.0%	0.8%	N/A	-0.2
9th grade	N/A	N/A	N/A	N/A	2.7%	1.8%	1.5%	1.1%	N/A	-0.4
10th grade	N/A	N/A	N/A	N/A	3.5%	1.7%	1.6%	1.7%	N/A	0.1
11th grade	N/A	N/A	N/A	N/A	4.2%	2.1%	1.9%	1.8%	N/A	-0.1
12th grade	N/A	N/A	N/A	N/A	3.4%	1.6%	1.7%	1.9%	N/A	0.2
Total	N/A	N/A	N/A	N/A	2.6%	1.4%	1.3%	1.2%	N/A	-0.1
Heroin										
6th grade	N/A	N/A	N/A	N/A	0.5%	0.4%	0.4%	0.7%	N/A	0.3
7th grade	N/A	N/A	N/A	N/A	0.9%	0.6%	0.6%	0.4%	N/A	-0.2
8th grade	N/A	N/A	N/A	N/A	1.4%	1.0%	0.8%	0.8%	N/A	0.0
9th grade	N/A	N/A	N/A	N/A	1.0%	1.1%	1.0%	1.0%	N/A	0.0
10th grade	N/A	N/A	N/A	N/A	1.4%	1.4%	1.0%	1.2%	N/A	0.2
11th grade	N/A	N/A	N/A	N/A	1.5%	1.4%	1.3%	1.2%	N/A	-0.1
12th grade	N/A	N/A	N/A	N/A	1.2%	1.0%	1.2%	1.3%	N/A	0.1
Total	N/A	N/A	N/A	N/A	1.1%	1.0%	0.9%	1.0%	N/A	0.1
Prescription Drugs[1]										
6th grade	N/A	N/A	N/A	N/A	N/A	2.8%	1.8%	1.8%	N/A	0.0
7th grade	N/A	N/A	N/A	N/A	N/A	3.7%	2.0%	1.9%	N/A	-0.1
8th grade	N/A	N/A	N/A	N/A	N/A	6.1%	3.8%	3.0%	N/A	-0.8
9th grade	N/A	N/A	N/A	N/A	N/A	8.9%	6.2%	5.1%	N/A	-1.1
10th grade	N/A	N/A	N/A	N/A	N/A	11.0%	8.1%	6.6%	N/A	-1.5
11th grade	N/A	N/A	N/A	N/A	N/A	11.6%	9.5%	8.1%	N/A	-1.4
12th grade	N/A	N/A	N/A	N/A	N/A	10.3%	9.4%	8.9%	N/A	-0.5
Total	N/A	N/A	N/A	N/A	N/A	7.8%	6.0%	5.2%	N/A	-0.8
Stimulants[2]										
6th grade	N/A	N/A	N/A	0.7%	0.4%	0.3%	0.4%	0.5%	N/A	0.1
7th grade	N/A	N/A	N/A	0.9%	0.7%	0.6%	0.5%	0.4%	N/A	-0.1
8th grade	N/A	N/A	N/A	3.1%	1.8%	1.2%	0.9%	0.7%	N/A	-0.2
9th grade	N/A	N/A	N/A	3.6%	2.0%	1.6%	1.7%	1.2%	N/A	-0.5
10th grade	N/A	N/A	N/A	3.7%	2.5%	2.7%	2.0%	1.6%	N/A	-0.4
11th grade	N/A	N/A	N/A	4.6%	3.5%	2.8%	2.6%	2.0%	N/A	-0.6
12th grade	N/A	N/A	N/A	4.8%	2.5%	2.7%	2.2%	2.1%	N/A	-0.1
Total	N/A	N/A	N/A	3.0%	1.9%	1.7%	1.5%	1.3%	N/A	-0.2

[1] Prescription drugs not specifically prescribed for the student. In the 2002 MYDAUS, OxyContin use was asked separately; therefore, the data are not comparable. In 2006, examples of prescription drugs commonly misused were added to the survey questions, which could have influenced the reported decrease in use.
[2] There was a slight wording difference in the stimulant question in the 2002-2008 surveys versus the 2000 survey (see p.22).

II.   SUBSTANCE USE

Cigarettes – Lifetime Use

- The prevalence rates of lifetime cigarette use have decreased steadily since 1995 (from 52.8% in 1995 to 25.2% in 2008). There has been a 27.6 percentage point reduction in lifetime cigarette use since 1995 and a 3.5 percentage point decrease since 2006 (28.7%).

- Since 1995, all grades have experienced a reduction in lifetime cigarette use of between 18 and 37 percentage points. Since 2006, the largest decreases in use were among 10th graders (-5.9 percentage points) and 9th graders (-5.2 percentage points).

Cigarettes – Past month Use[1]

- There has been a 12.9 percentage point reduction in the prevalence of past month cigarette use[1] since 1995 (from 25.1% in 1995 to 12.2% in 2008).

- Substantial reductions in past month use of cigarettes were seen across all grades when compared with 1995 data. The largest percentage point reduction since 2006 occurred among 10th grade students (down 3.3 percentage points; from 18.0% in 2006 to 14.7% in 2008).

Inhalants – Lifetime Use

- There has been a 10.0 percentage point reduction in the prevalence of lifetime inhalant use since 1995 (from 20.8% in 1995 to 10.8% in 2008), the 2008 rate represents a 1.4 percentage point decrease since 2006 (12.2%).

- Since 1995, the grade levels that have experienced the largest reduction in lifetime inhalant use were 8th grade (-17.1 percentage points) and 7th grade (-11.6 percentage points).

Inhalants – Past month Use

- There has been a 4.7 percentage point reduction in the prevalence of past month inhalant use since 1995 (from 8.7% in 1995 to 4.0% in 2008). The overall prevalence rate of past month inhalant use also has decreased slightly since 2006 (4.8%).

- Similar to lifetime inhalant use, the largest decreases in past month use of inhalants since 1995 occurred among students in grade 8 (-11.1 percentage points) and grade 7 (-6.4 percentage points).

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[1] A different question was used to define past month cigarette use in the 2004, 2006, and 2008 surveys. In these surveys, the question read as follows: "During the past 30 days, on the days that you smoked, how many cigarettes did you smoke per day?" In previous MYDAUS surveys, the question was, "How frequently have you smoked cigarettes during the past 30 days?"

II.   SUBSTANCE USE

Cocaine – Lifetime Use

- The 2008 results (3.8%) represent the first discernible decline in lifetime cocaine use since 1995 (4.9%).

- Lifetime cocaine use among the lower grades has decreased more or less steadily since 1995; however, among 11th and 12th graders, 2008 rates show the first decrease since 1996.

Cocaine – Past month Use

- The overall prevalence rate of past month use of cocaine has remained between 1.3% and 2.0% over the past decade; the current figure is 1.7%.

- In general, past month cocaine use hit a low of 1.3% in 1998/9, peaked at 2.0% in 2002 and 2004, and is once again decreasing.

LSD – Lifetime Use

- There has been a 5.5 percentage point reduction in the prevalence of lifetime LSD use since 1995 (from 9.7% in 1995 to 4.2% in 2008), but the rate has remained largely unchanged since 2004 (4.6%).

- Decreases since 1995 were observed in all grades, but the largest decrease in lifetime use occurred among 12th graders (-13.8 percentage points; from 23.0% in 1995 to 9.2% in 2008). It is interesting to note, however, that the only discernable increase in LSD use since 2006 occurred among 12th graders (from 7.9% in 2006 to 9.2% in 2008).

LSD – Past month Use

- Past month LSD use since 1995 has decreased by more than half (from 4.2% in 1995 to 1.8% in 2008).

- While decreased use levels were observed in all grades, the largest reductions since 1995 were found among students in the 9th grade (-4.9 percentage points; from 6.6% to 1.7%) and 12th grade (-3.8 percentage points; from 6.8% to 3.0%).

MDMA/Ecstasy – Lifetime Use[1]

- Lifetime Ecstasy use was less than half what it was in 2002 (down from 6.5% in 2002 to 2.9% in 2008).

MDMA/Ecstasy – Past month Use[1]

- Past month Ecstasy use in 2008 was also less than half what was observed in 2002 (2.6% in 2002 down to 1.2% in 2008).

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[1] These questions were first asked in 2002.

II.   SUBSTANCE USE

Heroin – Lifetime Use[1]

- There was an overall decrease in the prevalence of lifetime heroin use from 2002 (2.5%) to 2008 (1.7%).

Heroin – Past month Use[1]

- The prevalence of past month heroin use has essentially remained the same since 2002; the current rate is 1.0%.

Prescription Drugs – Lifetime Use[2]

- There has been a 5.8 percentage point reduction in the prevalence of lifetime prescription drug use since 2004 (from 16.6% in 2004 to 10.8% in 2008).

Prescription Drugs – Past month Use[2]

- There has been a 2.6 percentage point reduction in the prevalence of past month prescription drug use since 2004 (from 7.8% in 2004 to 5.2% in 2008).

- While decreased use levels were observed in all grades, the largest reductions since 2004 were found among students in the 10th grade (from 11.0% to 6.6%) and 9th grade (from 8.9% to 5.1%).

Stimulants – Lifetime Use[3]

- There has been a 5.2 percentage point reduction in the prevalence of lifetime stimulant use since 2000 (from 7.8% in 2000 to 2.6% in 2008) and a 0.7 percentage point reduction since 2006 (3.3%).

Stimulants – Past month Use[3]

- There has been a 1.7 percentage point decrease in past month stimulant use since 2000 (from 3.0% in 2000 to 1.3% in 2008).

- Although the overall past month stimulant use rate dropped just 0.2 percentage points since 2006 (1.5%), the rate for 11th grade students dropped from 2.6% to 2.0%.

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[1] These questions were first asked in 2002.
[2] Prescription drugs not specifically prescribed for the student. In the 2002 MYDAUS, OxyContin use was asked separately; therefore, the data are not comparable. In 2006, examples of prescription drugs commonly misused were added to the survey questions, which could have influenced the reported decrease in use.
[3] Since 2002, the stimulant questions have read as follows: "On how many occasions (if any) have you used stimulants ("amphetamines", "meth", "crystal", "crank") in your lifetime / during the past 30 days?" In the 2000 MYDAUS, the questions were: "On how many occasions (if any) have you used stimulants ("amphetamines", "meth", "crystal", "crank", "speed") in your lifetime / during the past 30 days?"

II.   SUBSTANCE USE

F.   Substance Use – Differences between Maine and the U.S.

In order to provide a broader perspective on the rates of substance abuse among Maine students, the MYDAUS results were compared to those from the 2008 "Monitoring the Future" (MTF) project. MTF is an annual survey based on a random sample of approximately 50,000 students in grades 8, 10 and 12 from about 420 public and private schools throughout the United States. *Because the MYDAUS and MTF surveys employ different methodologies, it is important to use caution when comparing the result*[1].

Students taking the MYDAUS had <u>significantly lower</u>[2] prevalence rates than the national average for the following substances (see the light green shaded cells in Tables 10 and 11):

- Binge drinking (5 or more drinks in one sitting) in the two weeks prior to the survey (8th grade)
- Frequent smoking (daily use in the past month) (8th, 10th and 12th grades)
- Heavy smoking (1/2 pack or more per day) (8th and 12th grades)
- Lifetime use of alcohol (8th and 10th grades)
- Lifetime use of marijuana (8th grade)
- Lifetime use of cigarettes (8th grade)
- Lifetime and past month use of smokeless tobacco (8th grade)
- Lifetime use of MDMA/Ecstasy (8th 10th grades)
- Lifetime use of inhalants (8th and 10th grades)
- Lifetime and past month use of stimulants (8th, 10th and 12th grades)

Students taking the MYDAUS had significantly <u>higher</u>[1] prevalence rates than the national average for the following substances (see the light red shaded cells in Tables 10 and 11):

- Heavy use of alcohol – binge drinking (5 or more drinks in one sitting) in the two weeks prior to the survey (12th grade)
- Heavy use of smokeless tobacco (daily use in the past month) (12th grade)
- Past month use of alcohol (8th, 10th and 12th grades)
- Lifetime use of marijuana (12th grade); past month use of marijuana (10th and 12th grades)
- Past month use of cigarettes (10th and 12th grades)
- Lifetime use of smokeless tobacco (12th grade); past month use of smokeless tobacco (10th and 12th grades)
- Past month use of MDMA/Ecstasy (10th grade)
- Past month use of inhalants (8th, 10th and 12th grades)
- Lifetime use of heroin (10th and 12th grades); past month use of heroin (8th, 10th and 12th grades)
- Lifetime use of LSD/psychedelics (10th and 12th grades); past month use of LSD/psychedelics (8th, 10th and 12th grades)

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[1] Monitoring the Future (2008). The University of Michigan. Unlike MYDAUS, the MTF includes private schools. Other factors that may contribute to observed differences are distribution of race and parental education. See: PM O'Malley, et al. (2006). How substance use differs among American secondary schools. <u>Prevention Science</u>, <u>7</u>, 409-420.
[2] Confidence Level > 95%

II. SUBSTANCE USE

Prevalence rates for the following substances were not significantly different[1] in the MYDAUS and MTF surveys:

- Heavy use of alcohol – binge drinking (5 or more drinks in one sitting) in the two weeks prior to the survey (10th grade)
- Heavy use of smokeless tobacco (at least once daily in the 30 days prior to the survey) (8th and 10th grades)
- Heavy smoking (1/2 pack or more per day) (10th grade)
- Lifetime use of alcohol (12th grade)
- Lifetime use of marijuana (10th grade); past month use of marijuana (8th grade)
- Lifetime use of cigarettes (10th and 12th grades); past month use of cigarettes (8th grade)
- Lifetime use of smokeless tobacco (10th grade)
- Lifetime use of MDMA (Ecstasy) (12th grade); past month use of MDMA (8th and 12th grades)
- Lifetime use of inhalants (12th grade)
- Lifetime use of heroin (8th grade)
- Lifetime use of LSD/psychedelics (8th grade)

Table 10: **Prevalence of Heavy Substance Use among the Maine Student Population versus the National Student Population: 2008.**

			HEAVY USE	
			2008 MYDAUS	**2008 MTF[2]**
BINGE DRINKING (PREVIOUS 2 WEEKS)	8th grade		6.5%	8.1%
	10th grade		15.9%	16.0%
	12th grade		26.2%	24.6%
SMOKELESS TOBACCO (AT LEAST ONCE DAILY IN PAST 30 DAYS)	8th grade		0.8%	0.8%
	10th grade		1.7%	1.4%
	12th grade		3.7%	2.7%
FREQUENT SMOKING (DAILY USE IN PAST 30 DAYS)	8th grade		1.0%	3.1%
	10th grade		3.8%	5.9%
	12th grade		8.1%	11.4%
HEAVY SMOKING (1/2 PACK+ PER DAY)	8th grade		0.6%	1.2%
	10th grade		1.7%	2.0%
	12th grade		3.5%	5.4%

	Maine prevalence rates are significantly <u>lower</u> than US rates.	Maine prevalence rates are significantly <u>higher</u> than US rates.

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[1] Confidence level >95%

[2] Monitoring the Future (2008). The University of Michigan. Unlike MYDAUS, MTF includes private schools. Other factors that may contribute to observed differences are distribution of race and parental education. See: PM O'Malley, et al. (2006). How substance use differs among American secondary schools. Prevention Science, 7, 409-420.

II. SUBSTANCE USE

Table 11: Prevalence of Lifetime and Past Month Substance Use among the Maine Student Population versus the National Student Population: 2008.

		LIFETIME			PAST MONTH	
		2008 MYDAUS	**2008 MTF[1]**		**2008 MYDAUS**	**2008 MTF[1]**
ALCOHOL	8th grade	32.7%	38.9%		17.0%	15.9%
	10th grade	55.8%	58.3%		32.8%	28.8%
	12th grade	71.0%	71.9%		44.9%	43.1%
MARIJUANA	8th grade	10.0%	14.6%		5.4%	5.8%
	10th grade	30.8%	29.9%		17.3%	13.8%
	12th grade	45.6%	42.6%		25.4%	19.4%
CIGARETTES	8th grade	17.6%	20.5%		6.8%	6.8%
	10th grade	31.0%	31.7%		14.7%	12.3%
	12th grade	43.5%	44.7%		23.6%	20.4%
SMOKELESS TOBACCO	8th grade	5.9%	9.8%		2.8%	3.5%
	10th grade	12.6%	12.2%		5.9%	5.0%
	12th grade	19.5%	15.6%		9.6%	6.5%
MDMA (ECSTASY)	8th grade	1.4%	2.4%		0.8%	0.8%
	10th grade	3.7%	4.3%		1.7%	1.1%
	12th grade	5.9%	6.2%		1.9%	1.8%
INHALANTS	8th grade	12.5%	15.7%		5.5%	4.1%
	10th grade	11.8%	12.8%		3.4%	2.1%
	12th grade	9.3%	9.9%		2.6%	1.4%
HEROIN	8th grade	1.3%	1.4%		0.8%	0.4%
	10th grade	1.9%	1.2%		1.2%	0.4%
	12th grade	2.4%	1.3%		1.3%	0.4%
LSD[2]	8th grade	1.9%	1.9%		1.1%	0.5%
	10th grade	4.9%	2.6%		2.2%	0.7%
	12th grade	9.2%	4.0%		3.0%	1.1%
STIMULANTS/ AMPHETAMINES[3]	8th grade	1.5%	6.8%		0.7%	2.2%
	10th grade	3.2%	9.0%		1.6%	2.8%
	12th grade	4.5%	10.5%		2.1%	2.9%

[1] Monitoring the Future (2008). The University of Michigan. Unlike MYDAUS, MTF includes private schools. Other factors that may contribute to observed differences are distribution of race and parental education. See: PM O'Malley, et al. (2006). How substance use differs among American secondary schools. Prevention Science, 7, 409-420.
[2] MYDAUS asked about use of "LSD or other psychedelics"; Monitoring the Future asked about "LSD".
[3] MYDAUS asked about use of "stimulants"; Monitoring the Future asked about "amphetamines".

III.   RISK & PROTECTIVE FACTORS

Social research has identified numerous and interrelated factors that increase or decrease the probability of alcohol, tobacco, and other drug use and related problems among youths. These risk and protective factors are found at multiple levels, including the school, the individual and his/her peer group, the community, and the family (Hawkins et al., 1992[1]; Kandel et al., 1986[2]; Newcomb & Felix-Oriz, 1992[3]). Identification of specific populations in which risk factors are high and protective factors are low permits identification of prevention needs and facilitates targeted programming toward the reduction of risk factors and the enhancement of protective factors (Hawkins et al., 1997[4]).

Risk factors are characteristics of school, community, and family environments, as well as characteristics of students and their peer groups that are known to predict increased likelihood of drug use, delinquency, and violent behaviors among youth. For example, children who live in disorganized, crime-ridden neighborhoods are more likely to become involved in crime and drug use than children who live in safer neighborhoods.

Protective factors exert a positive influence or buffer against the negative influence of risk, thus reducing the likelihood that adolescents will engage in problem behaviors. Protective factors identified through research reviewed by the Social Development Research Group (SDRG), University of Washington, Seattle, include social bonding to family, school, community and peers; and healthy beliefs and clear standards for behavior. For bonding to serve as a protective influence, it must occur through involvement with peers and adults who communicate healthy values and set clear standards for behavior.

In order to identify youth at high risk for problem behavior, cut points for the Risk and Protective Factor scales were calculated. The cut-point for a risk scale is the point at which a score on the scale predicts negative outcomes. The cut-point of a protective factor scale is the point at which a score on the scale predicts positive outcomes. Cut-points were determined for each of grades 6, 8, 10, and 12 by dividing youth from a large seven-state data set (all using the survey) into two groups – those with high scores on negative survey outcome areas, and those with low scores in these same areas. Then, each risk factor scale was tested statistically to determine the point at which it significantly predicted membership in the group with high negative outcomes. Protective factor scales were treated in the same way, except they were tested to determine the point at which a scale significantly predicted membership in the group with low scores on the survey outcome areas. For example, approximately 43% of the students were at or above the cut point on the risk scale "lower academic achievement". This can be interpreted to mean that approximately 43% of the students showed a level of academic failure indicative of negative outcomes.

The following section outlines Maine students' reported experience of risk and protective factors measured by the Maine Youth Drug and Alcohol Use Survey. The percentages represent the percent of students in each grade (6, 8, 10, and 12) who are at "elevated risk" or "elevated protection" as determined by student responses to questions associated with each indicator. See Appendix B for the definitions of the risk and protective factors and the questions associated with them.

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[1] Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. Psychological Bulletin, 112, 64-105.

[2] Kandel, D.B., Simcha-Fagan, O. & Davies, M. (1986). Risk factors for delinquency and illicit drug use from adolescence to young adulthood. Journal of Drug Issues, 16, 67-90.

[3] Newcomb, M.D., & Felix-Ortiz, M. (1992). Multiple protective and risk factors for drug use and abuse: Cross-sectional and prospective findings. Journal of Personality and Social Psychology, 63, 280-296.

[4] Hawkins, J.D., Arthur, M.W., & Catalano, R.F. (1997). Six state consortium for prevention needs assessment studies: Alcohol and other drugs (final report for the Center for Substance Abuse Prevention). Seattle, WA: University of Washington, Social Development Research Group.

III.   RISK & PROTECTIVE FACTORS

A.   Risk Factors

Table 12 illustrates that the greatest proportion (40.0% or more) of Maine students in the 6th, 8th, 10th, and 12th grades were at risk due to the following factors:

- Low school commitment (47.8%)
- Parental attitudes favor antisocial behavior (46.2%)
- Sensation seeking (45.9%)
- Attitudes favorable to antisocial behavior (45.6%)
- Lower academic achievement (43.3%)
- Antisocial peers (42.6%)
- Laws and norms favorable to drugs (42.4%)
- Poor family management (40.8%)
- Rewards for antisocial involvement (40.7%)

Students showed more moderate levels of risk (30.0% to 39.9% "at risk") for the following risk factors:

- Perceived risks of drug use (38.3%)
- Intentions to use drugs (37.9%)
- Rebelliousness (36.6%)
- Perceived availability of drugs (34.3%)
- Family history of antisocial behavior (33.2%)
- Peers' drug use (32.8%)
- Attitudes favorable to drug use (31.4%)
- Parental attitudes favor drug use (30.1%)

Maine students were lowest on the following risk factors (less than 30.0% "at risk"):

- Perceived availability of handguns (24.6%)
- Early initiation of drug use (23.3%)

III. RISK & PROTECTIVE FACTORS

B. Protective Factors

The greatest proportion (60.0% or more) of Maine students in the 6th, 8th, 10th, and 12th grades were protected due to the following factors (see Table 13):

- School opportunities for involvement (65.7%)
- Social skills (64.5%)
- Belief in the moral order (63.6%)

Students showed more moderate levels of protection (50.0% to 59.9% "protected") for the following protective factors:

- School rewards for pro-social involvement (59.8%)
- Family rewards for involvement (57.8%)
- Family opportunities for involvement (57.3%)
- Family attachment (53.3%)

Maine students were lowest on the following protective factors (less than 50.0% "protected"):

- Community opportunities for involvement (45.1%)
- Community rewards for involvement (41.5%)

C. Risk & Protective Factors – Differences by Grade

Tables 12 indicates that risk factors tended to increase with grade. There were, however, several exceptions.

The following risk factors did <u>not</u> increase with grade:

- Intentions to use drugs
- Laws and norms favorable to drugs (although the risk in middle school is significantly lower than in high school)
- Perceived availability of handguns
- Lower academic achievement
- Rebelliousness
- Low commitment to school (risk decreased with grade)

Several risk factors increased from grades 6 through 10, but then leveled off in the 12th grade. These risk factors include:

- Family history of antisocial behavior
- Antisocial peers
- Peers' drug use

It was harder to detect a trend among the protective factors; however, "community opportunities for involvement", "family opportunities for involvement", and "social skills" were higher for students in the 6th and 8th grades compared with students in the 10th and 12th grades.

Table 12: Prevalence of the Maine Student Population (Grades 6, 8, 10, and 12) Considered to be "At Risk" by Grade, Gender, and Gender within Grade: 2008.

	6th grade	8th grade	10th grade	12th grade	Female	Male	6th grade		8th grade		10th grade		12th grade		State[1]
							F	M	F	M	F	M	F	M	
Laws and Norms Favorable to Drugs	37.9	35.6	47.3	47.2	39.2	45.2	35.2	40.8	33.1	37.8	44.0	50.3	43.3	51.4	42.4
Perceived Availability of Drugs	27.7	27.5	36.5	43.7	33.8	34.0	25.2	29.7	27.4	27.3	37.8	35.2	42.9	44.1	34.3
Perceived Availability of Handguns	22.0	34.8	19.4	22.6	21.0	28.3	18.7	25.0	32.3	37.2	15.9	23.2	17.4	27.6	24.6
Poor Family Management	36.7	40.3	41.5	43.6	37.5	43.8	31.4	42.2	37.7	42.6	39.8	42.6	39.9	47.7	40.8
Family History of Antisocial Behavior	28.2	31.2	36.2	35.9	34.4	31.5	27.9	28.2	33.1	29.2	39.4	32.1	35.5	36.4	33.2
Parental Attitudes Favor Drug Use	10.6	21.8	38.8	44.2	28.2	30.8	9.3	11.8	21.1	22.4	37.4	39.8	41.2	47.0	30.1
Parental Attitudes Favor Antisocial Behavior	30.8	44.4	52.0	54.0	41.7	50.1	25.2	36.5	41.3	47.6	48.0	55.5	49.1	59.3	46.2
Lower Academic Achievement	40.9	44.6	46.5	40.6	38.9	47.1	36.3	44.7	39.9	48.9	43.2	49.2	35.5	45.0	43.3
Low School Commitment	52.0	48.0	46.1	45.8	40.7	54.4	42.9	60.8	40.8	54.6	39.9	51.2	39.4	51.6	47.8
Rebelliousness	40.8	32.0	37.4	36.4	32.6	40.3	34.9	46.8	29.5	34.2	34.9	39.4	30.8	41.3	36.6

Notes: All numbers represent percent of students; selected columns are highlighted only to make the chart easier to read.

[1] State average reflects data for the 6th, 8th, 10th, and 12th grades only.

Table 12: Prevalence of the Maine Student Population (Grades 6, 8, 10, and 12) Considered to be "At Risk" by Grade, Gender, and Gender within Grade: 2008. (Continued)

	6th grade	8th grade	10th grade	12th grade	Female	Male	6th grade		8th grade		10th grade		12th grade		State[1]
							F	M	F	M	F	M	F	M	
Early Initiation of Drug Use	18.8	19.6	25.7	28.4	21.4	24.5	14.3	22.9	18.9	20.0	26.9	24.1	24.9	31.6	23.3
Attitudes Favorable to Antisocial Behavior	44.8	39.9	49.1	48.0	39.1	51.6	38.3	51.1	34.7	44.8	43.4	54.4	39.4	56.3	45.6
Attitudes Favorable to Drug Use	16.8	24.2	39.8	42.5	28.4	32.9	13.8	19.2	23.3	24.9	38.7	40.1	36.7	47.3	31.4
Perceived Risks of Drug Use	23.5	33.4	41.9	51.9	33.5	41.9	21.3	25.7	29.4	37.2	37.6	45.7	44.5	58.4	38.3
Antisocial Peers	29.0	43.3	47.8	48.4	34.9	49.1	20.9	36.9	35.1	50.8	42.3	52.2	40.0	55.8	42.6
Peers' Drug Use	18.6	29.3	39.7	41.3	31.0	33.3	16.5	20.3	29.6	28.8	39.6	38.7	37.0	44.7	32.8
Sensation Seeking	42.8	45.9	46.4	48.2	36.7	54.6	33.5	52.2	37.8	53.6	38.9	53.1	36.2	59.8	45.9
Rewards for Antisocial Involvement	22.8	34.7	43.2	60.0	40.6	39.9	20.6	25.1	36.1	33.2	45.6	40.9	59.0	61.1	40.7
Intentions to Use Drugs	46.9	27.1	42.9	35.2	36.0	39.4	45.1	49.3	26.4	27.9	42.3	42.5	30.7	39.3	37.9

Notes: All numbers represent percent of students; selected columns are highlighted only to make the chart easier to read.

[1] State average reflects data for the 6th, 8th, 10th, and 12th grades only.

Table 13: Prevalence of the Maine Student Population (Grades 6, 8, 10, and 12) Considered to be "Protected" by Grade, Gender, and Gender within Grade: 2008.

	6th grade	8th grade	10th grade	12th grade	Female	Male	6th grade F	6th grade M	8th grade F	8th grade M	10th grade F	10th grade M	12th grade F	12th grade M	State[1]
Community Opportunities for Involvement	48.9	47.8	42.6	42.4	46.0	44.6	51.4	46.0	48.6	47.3	42.7	42.4	42.5	43.1	45.1
Community Rewards for Involvement	47.3	34.4	42.0	43.0	42.4	40.7	50.9	43.6	35.8	33.3	41.6	42.7	42.6	43.8	41.5
Family Attachment	57.8	53.2	46.5	57.4	53.8	52.9	60.1	55.6	52.8	53.4	46.2	46.9	57.8	56.9	53.3
Family Opportunities for Involvement	60.2	61.3	54.8	54.2	58.1	57.0	63.7	56.5	61.3	61.4	54.1	56.4	54.9	53.3	57.3
Family Rewards for Involvement	56.0	63.4	56.5	55.5	59.8	55.9	60.6	51.1	64.0	62.9	57.0	56.4	58.2	52.3	57.8
School Opportunities for Involvement	60.5	68.7	67.3	65.6	68.6	63.3	65.4	56.0	72.1	66.0	69.0	66.5	67.6	64.2	65.7
School Rewards for Pro-social Involvement	58.3	59.7	67.5	53.0	61.7	58.3	62.3	54.6	62.2	57.5	68.3	67.4	53.4	52.6	59.8
Social Skills	74.8	68.3	55.0	62.1	72.0	58.0	81.9	67.9	73.9	63.1	61.5	49.0	71.9	52.8	64.5
Belief in the Moral Order	66.5	66.3	68.0	53.5	72.8	55.2	75.5	57.9	73.8	59.3	76.1	60.5	65.6	42.3	63.6

Notes: All numbers represent percent of students; selected columns are highlighted only to make the chart easier to read.

[1] State average reflects data for the 6th, 8th, 10th, and 12th grades only.

III.   RISK & PROTECTIVE FACTORS

D.   Risk & Protective Factors – Differences by Gender

Table 12 and 13 show that generally, risk factors were higher for male students than they were for female students. Exceptions to this are as follows:

- "Rewards for antisocial involvement" (no significant difference)
- "Perceived availability of drugs" (no significant difference)
- "Family history of antisocial behavior" (female students are at higher risk)

Female students were more "protected" than male students for each of the protective factors, with the exceptions of "family attachment" and "family opportunities for involvement" for which there was no significant difference between the genders.

E.   Risk & Protective Factors – Differences by County

Tables 14 through 17 below show the breakdown of the risk and protective factors by county:

32

Table 14: **Highest Prevalence of the Maine Student Population (Grades 6, 8, 10, and 12) Considered to be "At Risk" by County: 2008.**

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Laws and Norms Favorable to Drugs	42.4	39.4	37.2	49.1	44.4	39.8	42.7	51.0	50.8	42.0	54.2	45.1	50.0	43.6	49.6	41.2	42.4
Perceived Availability of Drugs	33.3	33.3	32.2	38.2	34.3	31.8	36.4	36.6	36.1	32.5	40.1	35.8	39.8	30.4	38.3	36.4	34.3
Perceived Availability of Handguns	22.7	29.3	18.6	29.4	27.9	23.6	25.6	26.8	28.3	29.3	30.7	24.3	30.5	29.0	32.4	20.7	24.6
Poor Family Management	42.3	34.0	41.6	41.4	41.8	39.0	41.9	43.8	44.9	38.5	45.4	40.7	40.1	39.3	39.3	42.1	40.8
Family History of Antisocial Behavior	36.0	30.8	28.1	36.1	35.7	30.6	38.9	37.9	40.3	32.3	43.4	39.4	35.9	33.4	40.7	32.5	33.2
Parental Attitudes Favor Drug Use	30.1	29.1	29.1	35.6	31.2	26.9	29.0	35.3	32.3	28.4	40.4	32.8	33.8	30.9	28.1	30.1	30.1
Parental Attitudes Favor Antisocial Behavior	47.5	41.0	45.2	46.3	49.3	39.8	47.1	51.1	49.0	46.0	53.0	46.3	49.5	43.2	48.4	48.8	46.2
Lower Academic Achievement	48.2	41.9	40.1	41.3	43.5	41.9	43.6	46.2	47.7	42.7	46.7	42.7	47.1	47.3	51.1	41.9	43.3
Low School Commitment	48.8	46.7	44.9	47.1	48.8	49.5	50.4	52.4	49.7	47.0	49.6	48.6	52.3	50.6	50.6	46.7	47.8
Rebelliousness	39.8	34.3	34.4	34.5	36.6	36.2	42.2	40.3	38.9	37.1	40.0	34.8	38.3	36.8	40.7	35.7	36.6

Note: All numbers represent percent of students.

■ Represents the county with the highest rate in each category   ■ Represents the counties with the second and third highest rates in each category

Table 14: Highest Prevalence of the Maine Student Population (Grades 6, 8, 10, and 12) Considered to be "At Risk" by County: 2008. (Continued)

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Early Initiation of Drug Use	23.1	23.9	20.6	26.6	23.1	21.1	27.2	28.7	27.1	22.3	30.0	27.3	26.9	24.6	28.5	22.3	23.3
Attitudes Favorable to Antisocial Behavior	46.6	36.8	44.6	46.3	46.1	43.2	51.2	49.0	47.4	45.4	47.8	46.0	47.1	46.6	48.6	47.6	45.6
Attitudes Favorable to Drug Use	30.2	27.3	30.9	36.2	31.5	28.8	35.7	37.8	33.6	29.9	37.2	33.5	34.4	31.0	32.8	31.5	31.4
Perceived Risks of Drug Use	38.8	34.6	37.4	42.0	39.2	36.0	39.8	42.1	40.2	36.9	43.8	39.6	41.7	40.7	40.7	37.9	38.3
Antisocial Peers	45.1	40.7	39.3	40.3	42.4	39.3	40.4	46.8	46.2	43.2	46.8	43.0	50.4	41.6	49.5	42.7	42.6
Peers' Drug Use	31.4	30.1	31.8	33.9	29.3	29.7	34.2	37.1	37.8	31.9	39.1	34.7	36.2	30.8	39.0	33.7	32.8
Sensation Seeking	47.9	43.5	44.7	47.0	45.0	44.4	47.5	48.5	47.4	44.6	47.2	47.8	47.4	45.4	47.3	47.0	45.9
Rewards for Antisocial Involvement	37.1	34.5	42.2	45.5	40.7	35.4	41.7	41.7	41.9	40.4	44.1	44.3	44.4	40.4	42.5	42.4	40.7
Intentions to Use Drugs	36.5	33.3	39.7	41.2	37.9	33.9	41.4	40.4	39.7	35.9	42.5	41.4	35.9	37.5	40.6	38.5	37.9

Note: All numbers represent percent of students.

■ Represents the county with the highest rate in each category   ■ Represents the counties with the second and third highest rates in each category

34

Table 15: Lowest Prevalence of the Maine Student Population (Grades 6, 8, 10, and 12) Considered to be "At Risk" by County: 2008.

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Laws and Norms Favorable to Drugs	42.4	39.4	37.2	49.1	44.4	39.8	42.7	51.0	50.8	42.0	54.2	45.1	50.0	43.6	49.6	41.2	42.4
Perceived Availability of Drugs	33.3	33.3	32.2	38.2	34.3	31.8	36.4	36.6	36.1	32.5	40.1	35.8	39.8	30.4	38.3	36.4	34.3
Perceived Availability of Handguns	22.7	29.3	18.6	29.4	27.9	23.6	25.6	26.8	28.3	29.3	30.7	24.3	30.5	29.0	32.4	20.7	24.6
Poor Family Management	42.3	34.0	41.6	41.4	41.8	39.0	41.9	43.8	44.9	38.5	45.4	40.7	40.1	39.3	39.3	42.1	40.8
Family History of Antisocial Behavior	36.0	30.8	28.1	36.1	35.7	30.6	38.9	37.9	40.3	32.3	43.4	39.4	35.9	33.4	40.7	32.5	33.2
Parental Attitudes Favor Drug Use	30.1	29.1	29.1	35.6	31.2	26.9	29.0	35.3	32.3	28.4	40.4	32.8	33.8	30.9	28.1	30.1	30.1
Parental Attitudes Favor Antisocial Behavior	47.5	41.0	45.2	46.3	49.3	39.8	47.1	51.1	49.0	46.0	53.0	46.3	49.5	43.2	48.4	48.8	46.2
Lower Academic Achievement	48.2	41.9	40.1	41.3	43.5	41.9	43.6	46.2	47.7	42.7	46.7	42.7	47.1	47.3	51.1	41.9	43.3
Low School Commitment	48.8	46.7	44.9	47.1	48.8	49.5	50.4	52.4	49.7	47.0	49.6	48.6	52.3	50.6	50.6	46.7	47.8
Rebelliousness	39.8	34.3	34.4	34.5	36.6	36.2	42.2	40.3	38.9	37.1	40.0	34.8	38.3	36.8	40.7	35.7	36.6

Note: All numbers represent percent of students.

■ Represents the county with the lowest rate in each category   ▢ Represents the counties with the second and third lowest rates in each category

35

Table 15: **Lowest Prevalence of the Maine Student Population (Grades 6, 8, 10, and 12) Considered to be "At Risk" by County: 2008. (Continued)**

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Early Initiation of Drug Use	23.1	23.9	20.6	26.6	23.1	21.1	27.2	28.7	27.1	22.3	30.0	27.3	26.9	24.6	28.5	22.3	23.3
Attitudes Favorable to Antisocial Behavior	46.6	36.8	44.6	46.3	46.1	43.2	51.2	49.0	47.4	45.4	47.8	46.0	47.1	46.6	48.6	47.6	45.6
Attitudes Favorable to Drug Use	30.2	27.3	30.9	36.2	31.5	28.8	35.7	37.8	33.6	29.9	37.2	33.5	34.4	31.0	32.8	31.5	31.4
Perceived Risks of Drug Use	38.8	34.6	37.4	42.0	39.2	36.0	39.8	42.1	40.2	36.9	43.8	39.6	41.7	40.7	40.7	37.9	38.3
Antisocial Peers	45.1	40.7	39.3	40.3	42.4	39.3	40.4	46.8	46.2	43.2	46.8	43.0	50.4	41.6	49.5	42.7	42.6
Peers' Drug Use	31.4	30.1	31.8	33.9	29.3	29.7	34.2	37.1	37.8	31.9	39.1	34.7	36.2	30.8	39.0	33.7	32.8
Sensation Seeking	47.9	43.5	44.7	47.0	45.0	44.4	47.5	48.5	47.4	44.6	47.2	47.8	47.4	45.4	47.3	47.0	45.9
Rewards for Antisocial Involvement	37.1	34.5	42.2	45.5	40.7	35.4	41.7	41.7	41.9	40.4	44.1	44.3	44.4	40.4	42.5	42.4	40.7
Intentions to Use Drugs	36.5	33.3	39.7	41.2	37.9	33.9	41.4	40.4	39.7	35.9	42.5	41.4	35.9	37.5	40.6	38.5	37.9

Note: All numbers represent percent of students.

■ Represents the county with the lowest rate in each category   ■ Represents the counties with the second and third lowest rates in each category

36

Table 16: Lowest Prevalence of the Maine Student Population (Grades 6, 8, 10, and 12) Considered to be "Protected" by County: 2008.

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Community Opportunities for Involvement	42.5	50.6	47.9	44.8	49.3	45.1	51.9	44.9	44.1	45.7	41.2	40.7	39.3	44.3	39.2	41.9	45.1
Community Rewards for Involvement	38.0	49.1	41.0	38.6	46.6	40.4	47.5	43.9	41.4	43.7	44.2	41.7	39.0	46.2	47.7	36.3	41.5
Family Attachment	51.0	56.2	55.4	50.6	50.8	53.2	53.8	47.8	51.0	53.9	52.7	53.9	51.9	51.5	54.0	53.4	53.3
Family Opportunities for Involvement	54.9	60.2	59.1	55.4	55.1	58.1	56.8	52.3	55.8	57.8	52.7	57.2	56.6	56.4	56.9	57.4	57.3
Family Rewards for Involvement	53.5	61.1	59.9	55.9	57.7	57.6	57.5	52.5	55.5	58.9	52.9	58.5	58.3	57.8	55.7	57.9	57.8
School Opportunities for Involvement	63.2	66.8	67.8	65.9	70.4	62.0	66.9	59.8	64.1	67.5	62.2	64.3	61.8	65.8	60.0	67.2	65.7
School Rewards for Pro-social Involvement	61.2	60.5	62.3	60.3	64.8	56.1	59.5	58.3	56.5	59.5	53.1	63.1	53.3	59.9	63.9	59.5	59.8
Social Skills	63.8	67.3	65.4	62.7	63.7	66.9	64.4	61.3	61.0	66.1	59.7	63.4	61.5	64.2	61.5	64.5	64.5
Belief in the Moral Order	62.9	71.1	63.8	63.9	64.7	65.2	60.8	63.8	60.8	63.8	60.6	63.1	59.8	63.1	61.5	62.7	63.6

Note: All numbers represent percent of students.

■ Represents the county with the **lowest** rate in each category   ▨ Represents the counties with the second and third **lowest** rates in each category

37

Table 17: Highest Prevalence of the Maine Student Population (Grades 6, 8, 10, and 12) Considered to be "Protected" by County: 2008.

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Community Opportunities for Involvement	42.5	50.6	47.9	44.8	49.3	45.1	51.9	44.9	44.1	45.7	41.2	40.7	39.3	44.3	39.2	41.9	45.1
Community Rewards for Involvement	38.0	49.1	41.0	38.6	46.6	40.4	47.5	43.9	41.4	43.7	44.2	41.7	39.0	46.2	47.7	36.3	41.5
Family Attachment	51.0	56.2	55.4	50.6	50.8	53.2	53.8	47.8	51.0	53.9	52.7	53.9	51.9	51.5	54.0	53.4	53.3
Family Opportunities for Involvement	54.9	60.2	59.1	55.4	55.1	58.1	56.8	52.3	55.8	57.8	52.7	57.2	56.6	56.4	56.9	57.4	57.3
Family Rewards for Involvement	53.5	61.1	59.9	55.9	57.7	57.6	57.5	52.5	55.5	58.9	52.9	58.5	58.3	57.8	55.7	57.9	57.8
School Opportunities for Involvement	63.2	66.8	67.8	65.9	70.4	62.0	66.9	59.8	64.1	67.5	62.2	64.3	61.8	65.8	60.0	67.2	65.7
School Rewards for Pro-social Involvement	61.2	60.5	62.3	60.3	64.8	56.1	59.5	58.3	56.5	59.5	53.1	63.1	53.3	59.9	63.9	59.5	59.8
Social Skills	63.8	67.3	65.4	62.7	63.7	66.9	64.4	61.3	61.0	66.1	59.7	63.4	61.5	64.2	61.5	64.5	64.5
Belief in the Moral Order	62.9	71.1	63.8	63.9	64.7	65.2	60.8	63.8	60.8	63.8	60.6	63.1	59.8	63.1	61.5	62.7	63.6

Note: All numbers represent percent of students.

■ Represents the county with the **highest** rate in each category   ■ Represents the counties with the second and third **highest** rates in each category

III.   RISK & PROTECTIVE FACTORS

Table 18 illustrates that overall, the counties with the greatest number of high risk scores were Piscataquis, Lincoln, and Washington (see Table 14), and that the counties with the greatest number of low risk scores were Kennebec, Aroostook, and Cumberland (see Table 15).

Table 18:   Counties with the Highest and Lowest Prevalence of Risk Factors: 2008.

	Number of Times County Ranked 1st, 2nd, or 3rd for Highest Risk Scores				Number of Times County Ranked 1st, 2nd, or 3rd for Lowest Risk Scores		
	1st	2nd or 3rd	Total[1]		1st	2nd or 3rd	Total[1]
Androscoggin	0	2	2		0	2	2
Aroostook	0	0	0		8	5	13
Cumberland	0	0	0		7	3	10
Franklin	1	3	4		0	3	3
Hancock	0	0	0		1	0	1
Kennebec	0	0	0		3	12	15
Knox	2	1	3		0	1	1
Lincoln	3	9	12		0	0	0
Oxford	0	5	5		0	0	0
Penobscot	0	0	0		0	7	7
Piscataquis	10	3	13		0	0	0
Sagadahoc	0	3	3		0	0	0
Somerset	1	5	6		0	1	1
Waldo	0	1	1		1	1	2
Washington	2	8	10		0	1	1
York	0	0	0		0	3	3

[1] The highest possible number per county is 19, as there were 19 risk factors.

III. RISK & PROTECTIVE FACTORS

Table 19 illustrates that overall, the counties with the greatest number of low protective scores were Lincoln, Piscataquis and Somerset (see Table 16), and that the counties with the greatest number of high protective scores were Aroostook, Cumberland and Hancock (see Table 17).

Table 19:   Counties with the Highest and Lowest Prevalence of Protective Factors: 2008.

	Number of Times County Ranked 1st, 2nd, or 3rd for <u>Lowest</u> Protective Scores			Number of Times County Ranked 1st, 2nd, or 3rd for <u>Highest</u> Protective Scores		
	1st	2nd or 3rd	Total[1]	1st	2nd or 3rd	Total[1]
Androscoggin	0	3	3	0	0	0
Aroostook	0	0	0	6	1	7
Cumberland	0	0	0	0	4	4
Franklin	0	2	2	0	0	0
Hancock	0	1	1	2	2	4
Kennebec	0	1	1	0	3	3
Knox	0	1	1	1	1	2
Lincoln	4	1	5	0	0	0
Oxford	0	2	2	0	0	0
Penobscot	0	0	0	0	3	3
Piscataquis	2	3	5	0	0	0
Sagadahoc	0	1	1	0	1	1
Somerset	1	3	4	0	0	0
Waldo	0	0	0	0	0	0
Washington	1	1	2	0	3	3
York	1	0	1	0	0	0

[1] The highest possible number per county is 9, as there were 9 protective factors.

F.   Risk and Protective Factors – Differences between Maine and the U.S.

Table 20 shows the difference in perceived risk of cigarette smoking and marijuana and alcohol use between the Maine student population as quantified by the 2008 MYDAUS results, and U.S. students as measured through the MTF survey (2008). Compared with their counterparts in the rest of the country, significantly more[1] Maine 8th graders but fewer 10th and 12th graders recognized the risk from: 1) smoking a pack or more of cigarettes per day, and 2) trying marijuana once or twice. Maine's youth in grades 10 and 12 were less likely than other youth across the United States to believe that smoking marijuana regularly poses a "great risk" to one's health. Conversely, a greater proportion of Maine students (grades 8, 10, and 12) than U.S. students felt that drinking one or two alcoholic drinks daily posed a great risk.

In general, among Maine youth, the perceived health risks associated with these four behaviors decreased with age.

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[1] Confidence level >95%

III.   RISK & PROTECTIVE FACTORS

Table 20:   **Perceived Risk of Harm from Substance Use among the Maine Student Population versus the National Student Population: 2008.**

(Percentage of students saying "great risk" from….)		2008 MYDAUS	2008 MTF[1]
Smoking one or more packs of cigarettes per day	8th grade	69.8%	59.8%
	10th grade	65.5%	69.1%
	12th grade	62.0%	74.0%
Trying marijuana once or twice	8th grade	35.8%	31.1%
	10th grade	18.9%	23.1%
	12th grade	13.1%	17.4%
Smoking marijuana regularly	8th grade	72.4%	72.0%
	10th grade	47.1%	64.8%
	12th grade	35.6%	51.7%
Taking one or two drinks of an alcoholic beverage (beer, wine or hard liquor) nearly every day	8th grade	44.5%	31.5%
	10th grade	37.2%	35.0%
	12th grade	31.9%	24.2%

[1] Monitoring the Future (2008). The University of Michigan. Unlike MYDAUS, MTF includes private schools. Other factors that may contribute to observed differences are distribution of race and parental education. See: PM O'Malley, et al. (2006). How substance use differs among American secondary schools. Prevention Science, 7, 409-420.

Table 21 shows that a significantly smaller proportion of 8th, 10th and 12th graders in Maine, relative to their U.S. counterparts, felt that marijuana and alcohol were "sort of easy" or "very easy" to obtain. Maine students in grades 8 and 10 were also less likely to feel cigarettes were easy to obtain.

Table 21:   **Perceived Availability of Substances by the Maine Student Population versus the National Student Population: 2008.**

(Percentage of students saying "fairly/sort of easy" or "very easy" to get)		2008 MYDAUS	2008 MTF[1]
Marijuana	8th grade	25.4%	39.3%
	10th grade	61.6%	67.4%
	12th grade	76.0%	83.9%
Alcohol	8th grade	41.8%	64.1%
	10th grade	62.0%	81.1%
	12th grade	71.9%	92.2%
Cigarettes	8th grade	35.2%	57.4%
	10th grade	58.9%	76.5%
	12th grade	82.7%	N/A

[1] Monitoring the Future (2008). The University of Michigan. Unlike MYDAUS, MTF includes private schools. Other factors that may contribute to observed differences are distribution of race and parental education. See: PM O'Malley, et al. (2006). How substance use differs among American secondary schools. Prevention Science, 7, 409-420.

IV.   PROHIBITED BEHAVIORS

In Maine, the most common prohibited behaviors 6th through 12th grade students have participated in within the last year are the following (see Table 22):

- Attacking someone with the idea of seriously hurting them (12.1%)
- Being drunk or high at school (12.0%)
- Being suspended from school (9.6%).

Other prohibited behaviors that Maine students participated in within the 12 months preceding the survey include selling illegal drugs (6.3%) and being arrested (4.3%). In the year prior to the survey, less than three percent of students carried a handgun without permission (2.7%), stole or tried to steal a motor vehicle such as a car or motorcycle (2.5%), or carried a handgun to school without permission (1.2%).

A.   Prohibited Behaviors – Differences by Grade

Past-year prevalence rates of the following prohibited behaviors increased with grade:

- Being drunk or high at school (12th grade peak – 21.9%)
- Selling illegal drugs (12th grade peak – 12.0%)
- Being arrested (12th grade peak – 5.8%)
- Taking a handgun to school without permission (12th grade peak – 1.7%)
- Carrying a handgun without permission (12th grade peak – 3.3%)

Prevalence rates for the other prohibited behaviors did not consistently increase with age:

- Being suspended from school (9th grade peak – 11.5%)
- Stealing or trying to steal a motor vehicle (10th grade peak – 3.3%)
- Attacking someone with the idea of seriously hurting them (8th grade peak – 13.9%)

B.   Prohibited Behaviors – Differences by Gender

Table 22 also illustrates that prevalence rates for male students were significantly higher than those for female students for each of the prohibited behaviors:

- Being suspended from school (13.0% vs. 5.8%)
- Carrying a handgun without permission (4.1% vs. 1.1%)
- Selling illegal drugs (8.3% vs. 3.9%)
- Stealing or trying to steal a motor vehicle (3.4% vs. 1.4%)
- Being arrested (5.7% vs. 2.5%)
- Attacking someone with the idea of seriously hurting them (16.0% vs. 8.1%)
- Being drunk or high at school (12.8% vs. 10.5%)
- Taking a handgun to school without permission (1.8% vs. 0.5%)

Table 23 shows differences between genders within grade for prohibited behaviors.

Table 22: Prevalence of Prohibited Behaviors in Past Year among the Maine Student Population by Grade & by Gender: 2008.

	6th grade	7th grade	8th grade	9th grade	10th grade	11th grade	12th grade	Female	Male	State Average
Been suspended from school	5.8	7.1	10.5	11.5	11.0	10.9	9.0	5.8	13.0	9.6
Carried a handgun without permission	2.0	1.6	2.7	2.7	3.0	3.2	3.3	1.1	4.1	2.7
Sold illegal drugs	1.0	0.8	2.8	6.1	8.6	10.9	12.0	3.9	8.3	6.3
Stolen or tried to steal a motor vehicle	1.4	1.3	2.1	2.9	3.3	3.1	2.9	1.4	3.4	2.5
Been arrested	2.0	2.0	4.0	4.8	5.0	5.6	5.8	2.5	5.7	4.3
Attacked someone with the idea of seriously hurting them	9.6	10.3	13.9	13.7	13.1	12.0	11.3	8.1	16.0	12.1
Been drunk or high at school	2.3	2.9	6.9	11.8	16.2	19.8	21.9	10.5	12.8	12.0
Taken a handgun to school without permission	0.9	0.5	0.9	1.1	1.3	1.5	1.7	0.5	1.8	1.2

Notes: All numbers represent percent of students; selected columns are highlighted only to make the chart easier to read.

Table 23: Prevalence of Prohibited Behaviors in Past Year among the Maine Student Population by Gender within Grade: 2008.

	6th grade		7th grade		8th grade		9th grade		10th grade		11th grade		12th grade		State Avg.
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	
Been suspended from school	2.5	9.1	3.4	10.6	5.5	15.2	7.5	15.3	8.0	13.6	7.3	14.4	5.6	12.0	9.6
Carried a handgun without permission	1.0	2.8	0.8	2.4	1.3	4.0	0.9	4.3	1.3	4.5	0.9	5.7	1.3	5.0	2.7
Sold illegal drugs	0.7	1.1	0.5	1.2	1.7	3.7	4.2	7.7	5.9	11.2	7.0	15.2	6.6	17.6	6.3
Stolen or tried to steal a motor vehicle	0.9	1.9	0.9	1.6	1.4	2.7	1.6	3.9	2.0	4.3	1.9	4.8	1.3	4.3	2.5
Been arrested	1.3	2.5	1.0	2.8	2.3	5.6	3.1	6.4	3.6	6.0	3.1	8.2	3.0	8.3	4.3
Attacked someone with the idea of seriously hurting them	5.5	13.6	6.1	14.3	10.3	17.3	9.8	17.6	9.6	16.4	8.0	16.0	6.5	15.8	12.1
Been drunk or high at school	1.9	2.6	2.5	3.1	6.7	7.0	11.3	12.1	15.3	16.7	18.1	21.5	16.7	26.4	12.0
Taken a handgun to school without permission	0.6	1.0	0.2	0.7	0.4	1.3	0.3	1.6	0..4	2.1	0.7	2.4	0.7	2.7	1.2

Notes: All numbers represent percent of students; selected columns are highlighted only to make the chart easier to read.

Table 24: **Highest Prevalence of Prohibited Behaviors in Past Year among the Maine Student Population by County: 2008.**

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Been suspended from school	11.1	10.2	8.2	9.2	9.3	9.2	8.0	11.4	10.1	9.5	13.8	9.7	12.1	10.6	12.7	8.9	9.6
Carried a handgun without permission	3.5	2.5	2.4	2.1	3.3	3.1	3.4	3.2	2.8	2.5	3.1	2.3	3.2	2.3	3.2	2.3	2.7
Sold illegal drugs	6.3	4.5	6.6	5.9	5.9	5.9	5.7	8.6	7.4	5.7	7.4	7.0	6.8	6.8	6.1	6.4	6.3
Stolen or tried to steal a motor vehicle	3.4	2.3	2.6	1.8	3.0	2.4	2.0	2.7	2.7	2.2	3.4	2.1	2.5	2.7	3.3	2.2	2.5
Been arrested	5.2	3.6	4.3	3.5	3.5	4.0	2.8	4.6	5.1	3.4	4.1	5.3	4.6	3.7	3.8	5.1	4.3
Attacked someone with the idea of seriously hurting them	14.2	10.5	11.0	10.2	12.8	11.6	11.0	13.6	13.3	11.7	14.9	11.1	14.2	12.3	14.7	12.5	12.1
Been drunk or high at school	12.0	10.0	12.4	12.9	11.6	11.0	11.4	15.2	13.9	11.0	15.9	14.1	12.9	13.6	12.4	11.3	12.0
Taken a handgun to school without permission	1.7	0.7	1.2	1.0	1.1	1.7	1.3	1.4	1.0	1.1	1.3	1.1	1.3	1.1	1.0	1.0	1.2

Note: All numbers represent percent of students.

■ Represents the county with the highest rate in each category   ▮ Represents the counties with the second and third highest rates in each category

Table 25:   Lowest Prevalence of Prohibited Behaviors in Past Year among the Maine Student Population by County: 2008.

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Been suspended from school	11.1	10.2	8.2	9.2	9.3	9.2	8.0	11.4	10.1	9.5	13.8	9.7	12.1	10.6	12.7	8.9	9.6
Carried a handgun without permission	3.5	2.5	2.4	2.1	3.3	3.1	3.4	3.2	2.8	2.5	3.1	2.3	3.2	2.3	3.2	2.3	2.7
Sold illegal drugs	6.3	4.5	6.6	5.9	5.9	5.9	5.7	8.6	7.4	5.7	7.4	7.0	6.8	6.8	6.1	6.4	6.3
Stolen or tried to steal a motor vehicle	3.4	2.3	2.6	1.8	3.0	2.4	2.0	2.7	2.7	2.2	3.4	2.1	2.5	2.7	3.3	2.2	2.5
Been arrested	5.2	3.6	4.3	3.5	3.5	4.0	2.8	4.6	5.1	3.4	4.1	5.3	4.6	3.7	3.8	5.1	4.3
Attacked someone with the idea of seriously hurting them	14.2	10.5	11.0	10.2	12.8	11.6	11.0	13.6	13.3	11.7	14.9	11.1	14.2	12.3	14.7	12.5	12.1
Been drunk or high at school	12.0	10.0	12.4	12.9	11.6	11.0	11.4	15.2	13.9	11.0	15.9	14.1	12.9	13.6	12.4	11.3	12.0
Taken a handgun to school without permission	1.7	0.7	1.2	1.0	1.1	1.7	1.3	1.4	1.0	1.1	1.3	1.1	1.3	1.1	1.0	1.0	1.2

Note: All numbers represent percent of students.

■ Represents the county with the lowest rate in each category   ■ Represents the counties with the second and third lowest rates in each category

46

IV.   PROHIBITED BEHAVIORS

C.   Prohibited Behaviors – Differences by County

Tables 24 and 25 show the breakdowns of prohibited behaviors by county.

Table 26 below shows that overall, the counties with the greatest number of <u>high</u> prohibited behavior prevalence rates were Androscoggin and Piscataquis (see Table 24), and that the counties with the greatest number of <u>low</u> prohibited behavior prevalence rates were Aroostook, Franklin, and Knox (see Table 25).

Table 26:   Counties with the Highest and Lowest Prevalence of Prohibited Behaviors: 2008.

	Number of Times County Ranked 1st, 2nd, or 3rd for <u>Highest</u> Prohibited Behavior Rates			Number of Times County Ranked 1st, 2nd, or 3rd for <u>Lowest</u> Prohibited Behavior Rates		
	1st	2nd or 3rd	Total[1]	1st	2nd or 3rd	Total[1]
Androscoggin	3	2	5	0	0	0
Aroostook	0	0	0	3	1	4
Cumberland	0	0	0	0	2	2
Franklin	0	0	0	3	1	4
Hancock	0	1	1	0	1	1
Kennebec	1	0	1	0	1	1
Knox	0	1	1	2	3	5
Lincoln	1	2	3	0	0	0
Oxford	0	2	2	0	0	0
Penobscot	0	0	0	0	3	3
Piscataquis	4	1	5	0	0	0
Sagadahoc	1	1	2	0	2	2
Somerset	0	2	2	0	0	0
Waldo	0	0	0	0	1	1
Washington	0	3	3	0	0	0
York	0	1	1	0	2	2

[1] The highest possible number per county is 8, as there were 8 different prohibited behaviors included in this analysis.

IV. PROHIBITED BEHAVIORS

D. Prohibited Behaviors – Differences by Year, 1995-2008

The MYDAUS was administered in 1995, 1996, 1998/9[1], 2000, 2002, 2004, 2006, and 2008. These earlier data provide important comparisons to the 2008 results for the purpose of monitoring any changes in prohibited behaviors over time among Maine middle and high school students (see Table 27). Although such comparisons can be useful, it is important to note that there have been significant changes in methodology throughout the history of the survey that may have impacted the results; therefore, any comparisons between the data should be made with caution (see Appendix A for a discussion of differences in survey methodologies).

There has been a decline in participation in all of the prohibited behaviors since the 1995 survey:

- Been suspended from school (decreased from 11.4% in 1995 to 9.6% in 2008)

- Carried a handgun (decreased from 5.2% to 2.7%)

- Sold illegal drugs (decreased from 8.6% to 6.3%)

- Stolen or tried to steal a motor vehicle (decreased from 3.9% to 2.5%)

- Been arrested (decreased from 6.4% to 4.3%)

- Attacked someone with the idea of seriously hurting them (decreased from 14.5% to 12.1%)

- Been drunk or high at school (decreased from 16.0% to 12.0%)

- Taken a handgun to school (decreased from 2.1% to 1.2%)

Both 13-year and 2-year trends show small decreases in nearly all of the prohibited behaviors, the largest being Been Drink or High at School which decreased from 16.0% in 1995 to 12.0% in 2008. The one exception was, Taken a Handgun to School, which had the lowest prevalence and stayed at 1.2% between 2006 and 2008.

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[1] Administered during the fall of 1998 through the spring of 1999.

Table 27: Prevalence of Prohibited Behaviors During Previous Year among the Maine Student Population in Grades 6-12: 1995-2008.

	PAST YEAR PARTICIPATION								Percentage Point Change	
	1995	1996	1998	2000	2002	2004	2006	2008	Since 1995	Since 2006
Been Suspended from School										
Total	11.4%	11.6%	8.8%	10.9%	10.5%	10.0%	10.2%	9.6%	-1.8	-0.6
Carried a Handgun[1]										
Total	5.2%	4.3%	3.5%	4.2%	2.4%	2.6%	2.8%	2.7%	-2.5	-0.1
Sold Illegal Drugs										
Total	8.6%	7.9%	7.3%	7.3%	8.7%	7.2%	6.8%	6.3%	-2.3	-0.5
Stolen or Tried to Steal a Motor Vehicle										
Total	3.9%	3.4%	2.4%	3.0%	3.5%	3.1%	3.1%	2.5%	-1.4	-0.6
Been Arrested										
Total	6.4%	5.6%	4.5%	5.1%	5.5%	5.1%	4.9%	4.3%	-2.1	-0.6
Attacked Someone with the Idea of Seriously Hurting Them										
Total	14.5%	13.8%	11.5%	12.2%	14.0%	12.7%	12.7%	12.1%	-2.4	-0.6
Been Drunk or High at School										
Total	16.0%	16.0%	13.4%	13.7%	15.9%	14.1%	13.6%	12.0%	-4.0	-1.6
Taken a Handgun to School[1]										
Total	2.1%	1.6%	0.8%	1.2%	1.0%	1.3%	1.2%	1.2%	-0.9	0.0

Note: Selected columns are highlighted only to make the chart easier to read.

[1] In 2002, "without permission" was added to the wording of these questions.

V.   PRO-SOCIAL BEHAVIORS

Of the three pro-social behaviors included in the survey, the most common among Maine youth was participating in clubs, organizations, or activities at school (see Table 28). The next most common pro-social behavior among Maine students was doing extra work for school, followed by volunteering to do community service.

- Eight in ten (82.6%) 6th through 12th grade students in Maine participated in clubs, organizations, and activities at school in the year prior to taking the MYDAUS.

- Within the 12 months prior to the administration of the survey, 77.4% of students did extra work on their own for school, while 57.7% volunteered to do community service[1].

A.   Pro-social Behaviors – Differences by Grade

Table 28 shows that prevalence rates for the pro-social behaviors included on the MYDAUS did not consistently increase with age, but rather had their own specific patterns:

- *Participating in clubs, organizations, and activities at school* – This behavior had a higher prevalence among middle school students than of high school students.

- *Doing extra work on their own for school* – This behavior was quite consistent from 6th grade through 12th grade, with a low participation rate of 75.7% in the 9th grade and a high participation rate of 80.0% in the 6th grade.

- *Volunteering to do community service* – This behavior was more prevalent among high school students than among students in middle school; the lowest prevalence was among 8th graders (48.7%) and highest was among 12th graders (70.4%).

B.   Pro-social Behaviors – Differences by Gender

Prevalence rates for female students were significantly higher than those for male students for each of the prohibited behaviors:

- Participating in clubs, organizations, and activities at school (86.4% versus 79.2%)

- Doing extra work on their own at school (83.5% versus 71.5%)

- Volunteering to do community service (65.5% versus 49.9%)

Table 29 shows differences between genders within grade for pro-social behaviors. The pattern of increased prevalence rates among female students held true for each grade.

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[1] Some Maine high schools are starting to require community service as a graduation requirement.

Table 28: **Prevalence of Pro-social Behaviors in Past Year among the Maine Student Population by Grade & by Gender: 2008.**

	6th grade	7th grade	8th grade	9th grade	10th grade	11th grade	12th grade	Female	Male	State Average
Participated in clubs, organizations, and activities at school	84.8	86.2	85.8	81.3	80.7	80.1	81.0	86.4	79.2	82.6
Done extra work on your own for school	80.0	79.5	77.1	75.7	76.8	76.4	77.3	83.5	71.5	77.4
Volunteered to do community service	54.5	51.2	48.7	55.6	58.6	64.5	70.4	65.5	49.9	57.7

Notes: All numbers represent percent of students; selected columns are highlighted only to make the chart easier to read.

Table 29: **Prevalence of Pro-social Behaviors in Past Year among the Maine Student Population by Gender within Grade: 2008.**

	6th grade		7th grade		8th grade		9th grade		10th grade		11th grade		12th grade		State Avg.
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	
Participated in clubs, organizations, and activities at school	88.7	81.1	89.6	83.1	89.6	81.9	85.2	77.6	84.0	77.6	84.2	76.1	84.6	77.8	82.6
Done extra work on your own for school	85.3	74.9	84.7	74.6	83.5	71.1	81.1	70.1	83.5	70.6	83.5	69.2	83.4	71.2	77.4
Volunteered to do community service	62.4	47.1	59.1	43.8	56.5	41.5	62.5	48.9	66.4	50.7	73.4	55.2	78.1	63.4	57.7

Notes: All numbers represent percent of students; selected columns are highlighted only to make the chart easier to read.

Table 30: **Lowest Prevalence of Pro-social Behaviors in Past Year among the Maine Student Population by County: 2008.**

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Participated in clubs, organizations and activities at school	79.6	81.9	85.2	78.5	84.1	80.5	81.5	81.9	81.4	83.5	84.3	82.5	80.1	77.4	81.5	83.8	82.6
Done extra work on your own for school	76.7	73.8	80.3	75.7	77.6	75.4	79.2	76.9	74.1	76.1	76.1	77.6	75.1	76.2	72.5	80.1	77.4
Volunteered to do community service	55.5	57.1	62.3	55.4	58.8	58.7	58.9	55.2	51.8	56.4	61.9	54.7	47.3	54.5	55.0	60.1	57.7

Note: All numbers represent percent of students.

■ Represents the county with the lowest rate in each category   ■ Represents the counties with the second and third lowest rates in each category

Table 31: **Highest Prevalence of Pro-social Behaviors in Past Year among the Maine Student Population by County: 2008.**

	Andr	Aroo	Cumb	Fran	Hanc	Kenn	Knox	Linc	Oxfo	Peno	Pisc	Saga	Some	Wald	Wash	York	State
Participated in clubs, organizations and activities at school	79.6	81.9	85.2	78.5	84.1	80.5	81.5	81.9	81.4	83.5	84.3	82.5	80.1	77.4	81.5	83.8	82.6
Done extra work on your own for school	76.7	73.8	80.3	75.7	77.6	75.4	79.2	76.9	74.1	76.1	76.1	77.6	75.1	76.2	72.5	80.1	77.4
Volunteered to do community service	55.5	57.1	62.3	55.4	58.8	58.7	58.9	55.2	51.8	56.4	61.9	54.7	47.3	54.5	55.0	60.1	57.7

Note: All numbers represent percent of students.

■ Represents the county with the highest rate in each category   ■ Represents the counties with the second and third highest rates in each category

V. PRO-SOCIAL BEHAVIORS

C. Pro-social Behaviors – Differences by County

Tables 30 and 31 show the breakdown of pro-social behaviors by county.

Table 32 illustrates that overall, the counties with the greatest number of <u>low</u> pro-social behavior prevalence rates were Oxford and Waldo (see Table 30), and that the counties with the greatest number of <u>high</u> pro-social behavior prevalence rates were Cumberland, Piscataquis, and York (see Table 31).

Table 32: **Counties with the Highest and Lowest Prevalence of Pro-social Behaviors: 2008.**

	Number of Times County Ranked 1st, 2nd, or 3rd for <u>Lowest</u> Pro-social Behavior Rates			Number of Times County Ranked 1st, 2nd, or 3rd for <u>Highest</u> Pro-social Behavior Rates		
	1st	2nd or 3rd	Total[1]	1st	2nd or 3rd	Total[1]
Androscoggin	0	1	1	0	0	0
Aroostook	0	1	1	0	0	0
Cumberland	0	0	0	3	0	3
Franklin	0	1	1	0	0	0
Hancock	0	0	0	0	1	1
Kennebec	0	0	0	0	0	0
Knox	0	0	0	0	1	1
Lincoln	0	0	0	0	0	0
Oxford	0	2	2	0	0	0
Penobscot	0	0	0	0	0	0
Piscataquis	0	0	0	0	2	2
Sagadahoc	0	0	0	0	0	0
Somerset	1	0	1	0	0	0
Waldo	1	1	2	0	0	0
Washington	1	0	1	0	0	0
York	0	0	0	0	2	2

[1] The highest possible number per county is 3, as there were 3 different pro-social behaviors included in this analysis.

A. Creation of the Survey Instrument

The 2008 MYDAUS was adapted from the "Communities That Care" survey, which was developed by the Social Development Research Group (SDRG) at the University of Washington. The SDRG questionnaire was originally developed for use in the Six-State Consortium (of which Maine was a member) for substance abuse prevention needs assessment studies sponsored by the Center for Substance Abuse Prevention (CSAP). The questionnaire was validated through a rigorous statistical analysis process to show that the results were indicative of the behaviors reported. Selected as a core needs assessment measure for CSAP's state prevention needs assessment contracts, more than 22 states have conducted state-wide surveys using SDRG's instrument.

In 2004 the MYDAUS was merged with the Youth Tobacco Survey, administered by the Maine Bureau of Health (currently the Maine Center for Disease Control). The purpose was to lessen the burden on schools posed by multiple survey requests. In order not to increase the length of the survey, the six Risk Factors and one Protective Factor listed below were deleted. In general, these were chosen because they were either the least closely correlated with prohibited behaviors or the least easily ameliorated through intervention.

Low Neighborhood Attachment	Early Initiation of Prohibited Behavior
High Community Disorganization	Gang Involvement
Transitions and Mobility	Religiosity (Protective Factor)
High Family Conflict	

The 2004 MYDAUS/YTS was altered slightly for the 2006 and 2008 administrations. A copy of the 2008 MYDAUS/YTS is included in Appendix C.

B. Sample Design

All public schools in Maine with any grades 6 through 12 were encouraged to participate in the 2008 MYDAUS/YTS so that they could have local, objective data for planning and implementing targeted prevention programs. However, to minimize the risk of self-selection bias at the state and county levels, a random sample of schools was also selected and weighted more heavily. That process is described below.

Written by Market Decisions, Portland, Maine

The study population for the 2008 MYDAUS/YTS is Maine youth in grades 6 through 12 attending public and publicly funded schools[8]. Every school in Maine that included at least one of these grades was eligible to participate in the survey.

In order to meet the goals of this project, a database was developed to track all of the public schools in Maine. Once these were identified, the eligible schools were divided into two groups, each split out by county, to comprise a sample frame for the study. These two groups included a Middle School Sample group (schools with any grades 6-8) and a High School Sample group (schools with any grades 9-12). Both the middle school and high school groups were further divided by county to ensure that a representative number of schools would be selected in every county in the state. The final sampling frame contained 32 independent strata.

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[8] Schools are considered publicly funded if at least 60% of the school funding comes from publicly controlled sources such as municipal governments and local school administrative unit funding sources.

APPENDIX A – METHODOLOGY

Once the sample frame was identified, schools were selected randomly with probability proportional to enrollment within each group. The schools included in the sample were assigned to a sample stratum in the database; the remaining schools, those not selected for the sample, were designated as "volunteer schools". Every eligible school in Maine belonged to either one of the 32 strata or was classified as a volunteer school. For simplicity, the 32 strata fall into two main groups (with volunteer schools comprising a third group):

1. "Middle School Sample" – these schools were selected as part of a random sample of eligible middle schools (split out by county),
2. "High School Sample" – these schools were selected as part of a random sample of eligible high schools (split out by county),
3. "Volunteer" – these schools were not selected as part of the random sample, but were invited to take the survey anyway.

To simplify the survey administration, every student from each participating school was asked to take the survey.

Response Rates

The 2008 MYDAUS/YTS consisted of middle school by county and high school by county strata, although all qualifying schools were invited to participate regardless of whether they were sampled. Overall, there were 78,029 completed surveys, representing 72% of the 107,693 total eligible students in Maine. These students were from 340 of Maine's 428 eligible public schools.

One hundred middle schools and 44 high schools in the state were selected as part of a stratified sample. Eighty-eight of the sampled middle schools and 40 high schools participated in the 2008 MYTS/MYDAUS, for a school response rate of 89%. The school response rates ranged from a low of 55% in Penobscot County to a high of 100% in seven counties. Altogether, 32,694 of the 40,525 sampled students in the participating schools returned questionnaires, representing a student response rate of 81%. The overall response rate for the 2008 MYTS/MYDAUS, taking into consideration both the school and student response rate (in all sampled schools, regardless of strata), was 72% (school response rate x student response rate: 89% x 81% = 72%). The tables below detail response rates by strata and grade.

Response Rates – By Strata

	School Response Rate		Student Response Rate		Overall Response Rate
HS Sample	91%	*	77%	=	70%
MS Sample	88%	*	86%	=	75%

Note that the response rates include only the sampled schools and students.

Response Rates – By County

	School Response Rate		Student Response Rate		Overall Response Rate
Middle School					
Androscoggin County	88%	*	87%	=	77%
Aroostook County	100%	*	88%	=	88%
Cumberland County	100%	*	87%	=	87%
Franklin County	60%	*	83%	=	50%
Hancock County	100%	*	85%	=	85%
Kennebec County	100%	*	80%	=	80%
Knox County	80%	*	85%	=	68%
Lincoln County	100%	*	84%	=	84%
Oxford County	75%	*	87%	=	65%
Penobscot County	63%	*	87%	=	55%
Piscataquis County	100%	*	85%	=	85%
Sagadahoc County	100%	*	86%	=	86%
Somerset County	80%	*	85%	=	68%
Waldo County	80%	*	87%	=	69%
Washington County	86%	*	88%	=	76%
York County	100%	*	83%	=	83%
High School					
Androscoggin County	100%	*	69%	=	69%
Aroostook County	80%	*	80%	=	64%
Cumberland County	100%	*	80%	=	80%
Franklin County	50%	*	78%	=	39%
Hancock County	100%	*	74%	=	74%
Kennebec County	100%	*	77%	=	77%
Knox County	100%	*	71%	=	71%
Lincoln County	100%	*	74%	=	74%
Oxford County	100%	*	72%	=	72%
Penobscot County	33%	*	65%	=	21%
Piscataquis County	100%	*	85%	=	85%
Sagadahoc County	100%	*	83%	=	83%
Somerset County	100%	*	83%	=	83%
Waldo County	100%	*	72%	=	72%
Washington County	100%	*	76%	=	76%
York County	100%	*	79%	=	79%

Note that the response rates include only the sampled schools and students.

Response Rates – By Grade

	School Response Rate		Student Response Rate		Overall Response Rate
6th	88%	*	87%	=	77%
7th	88%	*	85%	=	74%
8th	88%	*	85%	=	75%
Middle School	88%	*	86%	=	75%
9th	91%	*	84%	=	77%
10th	91%	*	76%	=	69%
11th	91%	*	75%	=	68%
12th	91%	*	68%	=	62%
High School	91%	*	77%	=	70%
Total	89%	*	81%	=	72%

Note that the response rates include only the sampled schools and students.

C.   School Recruitment Procedures

To help elicit school participation, the OSA and Maine CDC sent a recruitment letter to all school superintendents in September of 2007. The recruitment letter briefly described the purpose of the survey and asked that superintendents and principals include the MYDAUS/YTS in their 2007-2008 school year survey schedule. Three different versions of the letter were sent – one to "required" schools indicating their school's need to participate in the survey based on grant obligations, one was to non-required schools that were included in the random statewide sample, and one was to non-required schools not in the statewide sample encouraging their participation in the survey. The letters also contained a very brief description of the survey and its content. A letter of intent fax-back form was enclosed with the recruitment letter. In addition to the letter, the staff at Pan Atlantic SMS Group contacted superintendents and principals (via phone, fax, and e-mail) to encourage participation. Principals who wanted their school to participate in the survey completed the form and faxed it back to Pan Atlantic SMS Group. The staff at Pan Atlantic SMS Group then contacted each individual school by phone to coordinate their participation in the survey.

D.   Participation and Student Confidentiality

Passive consent methodology was used for the 2008 MYDAUS/YTS.   To obtain passive consent, participating schools were required to send an informational letter to parents via the U.S. mail.   The letter explained that the survey was anonymous, participation was voluntary, and results would only be presented in group-summary form.   The letter informed parents that a copy of the survey instrument was on file at their child's schools if they wished to review it. Parents who wished to decline their child's participation were asked to notify the school.   Any student whose parent letter was returned undeliverable was not surveyed.   In order to be compliant with the No Child Left Behind Act, schools were asked that the letter be sent out at the beginning of the school year.

The total school population in grades 6 through 12 was targeted in all participating schools. Students whose parents did not give them permission to participate in the survey and/or did not themselves wish to participate in the survey were asked to sit quietly at their desks with an alternate activity during the survey administration.   Due to voluntary non-participation and absenteeism, the average attrition rate was approximately 20% for passive consent in 2008.

Precautions were taken to protect the anonymity of individual students.   During the administration of the survey, teachers monitoring the survey were asked to remain seated at the front of the class. At the end of the survey period, students were asked to insert their completed questionnaires in a large envelope as it was passed around the room, and the last student sealed the envelope before handing it back to the teacher.   Also, reporting conventions are designed to protect student confidentiality. The MYDAUS/YTS does not ask for the students' names or birthdays, and reporting by racial or ethnic group is strictly limited; data are not reported on schools or individual grades when fewer than 20 students participated in the survey.

E.   Data Collection and Processing

Participating schools administered the survey during the week of February 4-8, 2008. In some cases, the schools administered the survey during a make-up session later in the semester. School staff members were given training by Pan Atlantic SMS Group employees as to how to administer the survey themselves.   This was done primarily through group training sessions throughout the state.

After completed questionnaires were returned to Pan Atlantic SMS Group offices in Portland, Maine, the surveys were batched, scanned, and edited. Based on syntax originally developed by the Social Development Research Group (SDRG), surveys were excluded from the final analytical file if they met criteria that deemed them to be untruthful.   The original data file included 78,029 records. Once the "honesty" syntax was run, a total of 3,076 records were excluded from the final analysis.

F.   Method of Weighting

Written by Market Decisions, Portland, Maine

The goal of the weighting process is to ensure that the weighted sample accurately represents the entire student population within a stratum. The weighting approach applied to the MYDAUS/YTS data set was designed to take into account the sampling methodology used during the course of data collection.   Schools in the MYDAUS/YTS sample frame were separated into 32 distinct strata: middle school by county and high school by county.   The weighting methodology had 5 primary phases:

1. Probabilistic weights – the base weight assigned based on the probability of selecting a school.
2. School non-response weighting adjustments – adjustments made to the base weights to factor in schools that chose not to participate.
3. Student non-response weighting adjustments – weights to adjust for survey non-response within schools; that is, to adjust for the students that did not take the survey within each participating school.
4. Within-school post-stratification weights – adjustments to weights within each school to normalize to the actual distribution by grade and gender and to the total student population.
5. Geographic post-stratification weights – adjustments to weights within each county to normalize to the actual distribution by grade and gender and to the total number of students in each county.

Analysis of the data using these weights allows the results to be generalized to the study population; be it a school or another unit that involves more than one school. The weighting process is followed sequentially, adjusting the base sample weights by stages to arrive at the final weights. A full and detailed description of the weighting process can be found under Detailed Weighting Procedure, page 61.

Volunteer Schools

Since all public schools in the state were invited to participate in the 2008 MYDAUS/YTS, those schools not selected as part of either the middle or high school sample were treated similarly to volunteer schools from previous administrations of the survey. The 212 volunteer schools in the 2008 dataset received student non-response and within school post-stratification weighting adjustments (so that the survey data for each school matched the school's population counts for grade by gender). These schools were not included in probabilistic, school-non-response, and geographic post-stratification weighting adjustments.

Volunteer schools were given a probabilistic weight of 1 and no non-response adjustment. Since volunteer schools were not selected randomly, they had a probability of selection of 1. These schools had to volunteer to participate – schools that did not volunteer had no chance of selection. Put another way, all 212 volunteer schools that were available for "selection" by volunteering were "selected" and participated.

A non-probability sample (i.e., volunteer schools) can introduce bias into the results if the group possesses characteristics that are different than those who did not volunteer. Typically, these differences are unknown, making it difficult to estimate sampling variability or generalize the survey's results to the population with any confidence. Including such volunteers in the weighting scheme can actually reduce statistical precision if they are not representative of the population.

Since the differences between schools that volunteered and those that did not are not known, and to avoid introducing bias, only sampled schools were weighted to the county level. Volunteer schools were allowed to represent themselves (with a weight of 1), with the remaining schools representing the broader population.

Honesty Profile

Students that were part of the sample who failed the honesty profile remained in the weighting scheme because they were part of the random sample of students. They are required for the sample to be generalized to the population (i.e., representative of all students in the state regardless of how they answered the survey). However, a separate set of weights were computed for only those students who passed the honesty profile (the weights of dishonest students have been set to 0 in this case). These weights are considered representative students in grades 6-12 who passed the honesty profile.

Survey Precision

A summary of survey precision for the state and each grade is presented below. The precision estimates include the impact of the survey design effects of the sampling methodology. Design effects estimates were obtained through SUDAAN[9]. The precision estimates assume a conservative prevalence of 50%. In reporting survey data, the confidence intervals include the impact of design effects but are calculated based on the distribution of responses to each question.

Grade	Survey Precision (+/-)
6th	0.74%
7th	0.65%
8th	0.70%
9th	0.74%
10th	0.72%
11th	0.86%
12th	1.28%
Total	**0.34%**

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[9] SUDAAN is an advanced statistical software package licensed through and maintained by RTI, Inc. SUDAAN differs from other statistical packages in that it can handle the design effects of complex sampling schemes more effectively than other packages.

Detailed Weighting Procedure

The weighting scheme applied to the YTS data set was designed to take into account the sampling methodology used during the course of data collection. The weighting methodology had 5 primary phases:

Probabilistic weights – the base weight assigned based on the probability of selecting a school.

School non-response weighting adjustments – adjustments made to the base weights to factor in schools that chose not to participate.

Student non-response weighting adjustments – weights to adjust for survey non-response within schools; that is, to adjust for the students that did not take the survey within each participating school.

Within school post stratification weights – adjustments to weights within each school to normalize to the actual distribution by grade and gender where possible and to the total student population.

Geographic post stratification weights – adjustments to weights within each county to normalize to the actual distribution by grade and gender and to the total number of students in each county.

The final data set includes 2 weights. These are used for different purposes.

FINSCHWT is the final school weight. This is the weight that will be used when you wish to conduct analysis for a specific school or school district.

FINALWT is the final geographic weight. This is the weight that will be used when you wish to look at results by county, by public health district or for the state as a whole.

Analysis of the data using these weights will allow results to be generalized to the target population be it a school or another unit that involves more than one school.

The weighting process is followed sequentially, adjusting the base sample weights by stages to arrive at the final weights.

APPENDIX A – METHODOLOGY

Base Sample Weight (Probabilistic Weight)

This is the base sample weight that reflects the probability that a student was selected to participate in the research. The base weight reflects that the survey was conducted among distinct school sampling strata.

The base sample weight is simply the inverse of the probability of selection.

$$\textbf{Base Sample Weight (BW}_i\textbf{) = N}_i\textbf{/n}_i$$

Where $\textbf{N}_i$ represents the total number of schools in stratum i and $\textbf{n}_i$ represents the total number of sample schools drawn in stratum i. Schools are selected with probability proportional to size (PPS), with size defined as school enrollment in the target grades. The "within-school weight" is equal to the inverse of the conditional probability that the class is selected given the school is selected, which in the case of the 2008 MYDAUS/YTS, is 1.

School Non-Response Weighting Adjustment

There were actually two non-response weighting adjustments made to the sample records. The first was an adjustment made at the school level to reflect the fact that all selected schools did not actually participate in the study. This weighting adjustment takes into account schools that refused to participate. The school non-response weighting adjustment is equal to:

$$\textbf{Adj}_{wcti} = \quad \text{School Non-response} \atop \text{Weighting Adjustment} \quad = \quad \frac{\Sigma\ \textbf{BW}_i}{\Sigma\ \delta_{wcti}\textbf{*BW}_i}$$

Where:
- $\textbf{BW}_i$ is the base sample weight in stratum i.
- δ_{wcti} is the school non-response adjustment factor, which is equal to one for schools that participated in the study and zero for schools that did not participate (refused).

The School Non-response Adjusted Weight is then calculated as:

$$\textbf{BW}_{i1} = \textbf{BW}_i * \textbf{Adj}_{wcti}$$

The school non-response adjustment apportions the probability of selection to those schools that actually participated in the school from all schools in the sampling frame.

APPENDIX A – METHODOLOGY

Student Non-response Weighting Adjustments

The first non-response adjustment was made at the school level, that is, it was applied to all schools evenly. Again this adjustment apportioned the probability of selection from all sampled schools to those that actually participated. Within each school, there is also survey non-response; that is, there will be students who do not participate in the research by choice, since they were absent, and for other reasons. The student non-response weighting adjustment is made to factor in non-response within each school. The adjustment is equal to:

$$\text{Adj}_{rii} = \text{Student Non-response Weighting Adjustment} = \frac{\Sigma \, BW_{i1}}{\Sigma \, \delta_{rii} * BW_{i1}}$$

Where:
- BW_{i1} is the base sample weight in school i after the school non-response adjustment.
- δ_{rii} is the student non-response adjustment factor, which is equal to one for students that participated in the study within each school and zero for students that did not participate.

The Student Non-response Adjusted Weight is then calculated as:

$$BW_{is} = BW_{i1} * \text{Adj}_{rii}$$

After this adjustment, the weighted survey counts within each school will sum to the actual population within the school. That is, those students that completed the survey have a positive weight while students that did not participate have an adjusted sample weight of zero.

Post Stratification Weighting

The goal of weighting the survey data is to allow statements to be made about the target population. But in order to do this the data set must be representative of the population. Since a survey process involves randomness, it is very unlikely that the survey respondents will exactly match the characteristics of the actual population.

The purpose of post stratification weighting is to standardize the weights so they sum to the actual population within each sampling strata. Post stratification weighting adjustments were made by grade and gender. Given the types of analysis that will be conducted, it was necessary to calculate two sets of post-stratification weights: one for analysis of school or school district level data and one for analysis of data at the state level, at the health district level or at the county level.

Data on population counts was developed from a complete list of students provided by the Maine Department of Education. This data provided a breakdown of students by school and within school by gender and grade. The final weighting numbers were based on the total population of school and students included in the sampling frame.

In both sets of post stratification weights, the same general process was used. A weighting cell was identified based on the gender and grade. Note the cells varied across schools given the grades taught at the school. But across all school the students were classified into the following cells:

Female	Male
6th Grade	6th Grade
7th Grade	7th Grade
8th Grade	8th Grade
9th Grade	9th Grade
10th Grade	10th Grade
11th Grade	11th Grade
12th Grade	12th Grade

An adjustment was made to the weight that reflected the total number of students in the population within each of these cells divided by the number of students in each cell that completed the survey. In this fashion, the weighted data reflects the actual distribution of the population by age and gender.

However, this weighting adjustment was only made in cases where there were a minimum of 20 respondents in the cell. This is the minimum level at which weighting can be applied. This meant that is some cases (especially when weighting at the school level) it was not possible to weight within these cells.

Further, there were a number of respondents that did not provide information on their gender and/or grade level. In such cases it was not possible to assign a student to one of these weighting cells. In such cases, their weighting adjustment was always equal to one.

Within School Post Stratification Weights

In order to meet the reporting goals of 2008 MYDAUS/YTS, separate post stratification weights were developed for analysis at the school or district level and for analysis at the county, public health district, or state level. The final school post stratification weight [FINSCHWT] is used for analysis of data at the school or school district level and is considered representative of the students within a school and the school districts that are formed by one or more participating schools. Since schools were sampled at the county level and are weighted separately to be representative of the student population within each county, analysis conducted by county, health district or for the state overall should be done with the geographic post-stratification weights [FINALWT], which are discussed below.

This within school post stratification weight adjusted the survey data to match the population counts by gender and grade within each school. An adjustment factor was calculated within each school by grade by gender cell:

$$\text{Adj}_{\text{ASi}} = \text{AS}_{\text{school - actuali}}/\text{AS}_{\text{school– surveyi}}$$

Where:
- Adj_{ASi} is the grade by gender weighting adjustment within each school.
- $\text{AS}_{\text{school - actuali}}$ is the actual population within a specific school by grade by gender cell.
- $\text{AS}_{\text{school– surveyi}}$ is the weighted survey counts within a specific school by grade by gender cell.

The School Post Stratification Weight was the Student Non-response Adjusted Weight multiplied by this grade/gender weighting adjustment within each school:

$$\text{BW}_{\text{sps}} = \text{BW}_{\text{is}} * \text{Adj}_{\text{ASi}}$$

As noted the weighting adjustment was equal to one in cases where there were fewer than 20 students in a cell.

Final School Analysis Weight

The final school weight should reflect the total number of students within each school by grade and gender and should be considered representative of the all the students in the school. The weighted counts in the data set should also reflect the actual student counts within the school. There were two factors that influenced weighting at this stage that led to this condition not being met. These are cases where there were insufficient students in a weighting cell to allow post stratification weighting and cases where there was missing data on a respondent for one of the weighting variables. This means that the weighted data set at this point does not reflect the actual count of students within the school in some cases. To account for this, one final adjustment is made to the data set that again standardizes the weights so that they will sum to the actual number of students within the school. It is similar to the post stratification adjustment noted above but it is applied equally to all students within the school:

$$\text{Adj}_{\text{Si}} = \text{AS}_{\text{actual}}/\text{AS}_{\text{survey}}$$

Where:

- Adj_{Si} was the population standardization weighting adjustment within each school.
- $\text{AS}_{\text{actual}}$ was the actual population within the school.
- $\text{AS}_{\text{survey}}$ was the weighted survey counts within the school.

The Final School Analysis Weight is the School Post Stratification Weight multiplied by this school standardization weighting adjustment within each school:

$$\text{FINSCHWT} = \text{BW}_{\text{sps}} * \text{Adj}_{\text{Si}}$$

Population Size Reflected in the Final Data Set Using FINSCHWT

The weighted data set is designed to provide data that can be generalized to the population of each participating school. Within each participating school, the results can be generalized to the population of students. In schools with sufficient populations, the results can be generalized to each grade by gender cell (in cases where more than 20 students in the cell completed surveys).

NOTE: Since there are cases where gender and/or grade information was not provided, the weighted counts may not equal the actual school population in that specific grade by gender cell (since the data set had to weight all respondents to the actual school population). However, in conducting analysis of survey results within these cells the percentages will accurately reflect the views of the specific subpopulation. That is, the percentages can be generalized to the specific subpopulation (with the caveat that there are sufficient people within the cell).

Geographic Post Stratification Weights

Separate post stratification weights were developed for within school analysis and for analysis across schools or analysis that included several schools. The second are the geographic post stratification weights. These final geographic post stratification weights can be used for analysis of data at the state and county level or other analysis that includes data from more than one school.

This geographic post stratification weight adjusted the survey data to match the population counts by gender and grade within strata. An adjustment factor was calculated within each middle/high school by county by grade by gender cell:

$$Adj_{ACi} = AS_{county\text{ - }actual}/AS_{county\text{– }survey}$$

Where:

- Adj_{ACi} is the grade by gender weighting adjustment within each stratum (middle/high school by county).
- $AS_{county\text{ - }actual}$ is the actual population within a specific stratum by grade by gender cell.
- $AS_{county\text{– }survey}$ is the weighted survey counts within a specific stratum by grade by gender cell.

The geographic post stratification weight was the student non-response adjusted weight multiplied by this grade/gender weighting adjustment within each county:

$$BW_{cps} = BW_{is} * Adj_{ACi}$$

Final Geographic Analysis Weight

The final geographic weight should reflect the total number of students within each stratum by grade and gender and should be considered representative of the all the students in the stratum (in 2008, representative of the gender and age categories of the students in middle and high schools in each county). The weighted counts in the data set should reflect the actual student counts within the county and also in other geographies.

There were two factors that influenced weighting at this stage that led to this condition not being met. These are cases where there were insufficient students in a weighting cell to allow post stratification weighting and where there was missing data on a respondent for one of the weighting variables. This means that the weighted data set at this point does not reflect the actual count of students within the county. To account for this, one final adjustment is made to the data set that again standardizes the weights so that they will sum to the actual number of students within the county.

$$\text{Adj}_{Ci} = \text{ACS}_{actual}/\text{ACS}_{survey}$$

Where:

- Adjc_i was the population standardization weighting adjustment within each stratum.
- AS_{actual} was the actual population within the stratum.
- AS_{survey} was the weighted survey counts within the stratum.

The final school analysis weight is the school post stratification weight multiplied by this school standardization weighting adjustment within each county:

$$\text{FINALWT} = \text{BW}_{cps} * \text{Adj}_{Ci}$$

Population Size Reflected in the Final Data Set Using FINALWT

The weighted data set is designed to provide data that can be generalized to the population of the state and county. At the state level, the results can be generalized to each grade by gender cell. Within each county, the data can also be generalized to each grade by gender cell.

Weight Variants

The two weights developed above are the most appropriate for analysis of the survey data. In an effort to match the weighting variables used prior in the InforME web site, two variants of these weights were calculated:

FINSCHWT is the final school weight. For this weight the weighted count of respondents will sum to the number of respondents within the school, not the total number of students in the school.

FINALWT is the final geographic weight. For this weight the weighted count of respondents will sum to the number of respondents across all schools, not the total number of students in Maine.

Using these weights will change the total number of cases reflected in any analysis of the data. They were calculated by normalizing back to the actual number of completions by multiplying by a constant, with a few exceptions.

In the 2000 and 2002 data sets there were cases that were not included in the data that were provided to InforME. These surveys were sent after the deadline and are included in the data set but not included in the data set as presented on inforME (their weights were sent to 0). Both the **Finalwt** and **finschwt** weights included these cases. This means that not only will the counts differ when comparing data weighted by **finalwt** to that weighted by **finalwt2** but that in some cases column percentages might differ slightly. Again this is due to the fact that the two weights are based on a different number of cases.

In conducting analysis it is best to rely on **finalwt** and **finschwt** since they reflect population based weights based on all cases in the data set (including students who did not pass the honesty profile). The weights **finalwt2** and **finschwt2** are comparable (in terms of the cases used in their calculations) to those already in inforME – that is the number of cases will be the same as reflected in the earlier data sets.

G.   Comparisons in Methodology of Past MYDAUS Surveys

Earlier versions of the MYDAUS were administered in 1995, 1996, 1998/9, 2000, 2002, 2004, and 2006. These earlier data provide important comparisons to the 2008 values for the purpose of monitoring any changes in drug use behaviors over time among Maine school students. There have been significant changes in methodology throughout the history of the survey that may have impacted the results (see Table 33).

One of the methodological differences between the survey administrations is related to the sampling of schools. In the 1995 and 1996 administrations, a representative, random sample of schools was selected. In 1998/9, 2000, and 2002, all schools were invited to participate and in these years, a Multi-Phase Stratified Exhaustive Sampling was chosen as the methodology that would most effectively and efficiently allow OSA to achieve its dual goals of: 1) collecting a representative sample stratified by grade or gender at the state, regional and county levels, and 2) providing data for any public school wanting local data for prevention program planning and evaluation. The 2004, 2006, and 2008 surveys consisted of a mixed sampling approach, with some schools being required to participate, other schools participating in a randomly-selected sample, and still other schools volunteering to participate on their own.

A second important change in the methodology is related to within-school sampling of students. In the 1995 and 1996 surveys, random samples of students were asked to participate in the survey.   In the 1998/9 survey, the total student population was targeted in schools with enrollment figures of 250 or fewer students.   Schools with more than 250 students were sampled through a target population that would provide data on an individual school level that would not exceed a ±5.00 percent margin of error at the 95% confidence interval. In 2000, 2002, 2004, 2006, and 2008 participating schools were asked to include their entire school population in the survey – regardless of school size. In a few instances, however, a random sample of students participated in the survey as opposed to the entire school population.

The third difference in the methodology concerns the parental consent procedure. The 1995, 1996, 2000, 2002, 2004, 2006, and 2008 surveys employed a passive consent protocol, in which parents were notified that their children would be surveyed unless they contacted the school and expressed their preference not to have their child participate in the survey. In 1998/9, an active consent protocol was implemented, requiring parents to return a form to the school allowing their children to participate in the survey. The difference in consent protocol may have affected the results of the 1998/9 survey if the parents of high risk students were more or less likely to turn in the form and grant permission for their child to participate. For each administration of the MYDAUS, students were given the option not to participate in the survey. This volunteer sample at the student level may have systematically biased the results; if, for example, students at high risk for drug use chose not to participate in the survey.

Table 33:   Comparison of MYDAUS Methodology and Participation: 1995 - 2008.

	Parental Consent	Sampling Strategy	Number of Participating Students	Percent of Eligible Students	Number of Schools	When Administered	Margin of Error
1995	Passive	Random	7,477	7%	48	April to June, 1995	±1.09%
1996	Passive	Random	6,398	6%	55	March to June, 1996	±1.19%
1998/9	Active	Census	22,162	18%	212	October, 1998 to March, 1999	±0.59%
2000	Passive	Census	30,491	27%	180	February, 2000	±0.48%
2002	Passive	Census	56,719	48%	270	February, 2002	±0.30%
2004	Passive	Census/ Random	75,165	63%	342	February, 2004	±0.23%
2006	Passive	Census/ Random	77,206	68%	337	February, 2006	±0.20%
2008	Passive	Census/ Random	74,953	70%	340	February, 2008	±0.20%

H.   Limitations

The MYDAUS is limited due to its exclusive focus on adolescents in school. With such a focus, some adolescent subpopulations, such as school dropouts and homeless and runaway youths, will be missed or undercounted.

A.   Risk and Protective Factor Scales and Cut-Points

The scales for the risk and protective factors were provided by the University of Washington's Social Development Research Group (SDRG).   Risk and protective factor scales were constructed using Likert scaling practices. The response options of some items were recoded or reordered to provide a continuum from high to low appropriate for the scale. For risk scale items, a high value reflects an undesirable attitude or behavior. For protective scale items, a high value reflects a desirable attitude or behavior. For the scaled data, the cut point was determined by taking the median value (plus 0.15 times the standard deviation) for each scale for all the weighted 2000 data from all seven participating states in the Diffusion Project consortium. If the individual student's score was above the cut point, s/he was considered at risk (or protected).

By way of illustration, the risk factor in the school domain described as "Lower Academic Achievement" is based on the scores from two questions. One asks, "Putting them all together, what were your grades like last year?" (Question 8). The responses are recoded so that the lowest grades have the highest values; for instance "F" is given the value of 4, "C" is 2.5, and "A" is 1. The second question is, "Are your grades better than the grades of most students in your class?" (Question 18), with the responses ranging from an emphatic "NO!" (4 points) to an emphatic "YES!" (1 point). A student has to answer both questions to get a score for this risk factor. The mean of the two responses is compared to the cut point calculated using the scores from all students in the seven states who answered the two questions. In this case, the cut point for 6th graders is 1.977. If a student scored higher than this, s/he was considered at risk for "Lower Academic Achievement".

B.   Risk and Protective Factor Definitions

The following risk and protective factors have been identified through research reviewed by the Social Development Research Group (SDRG), University of Washington, Seattle.   SDRG obtained the specific definitions and reasoning listed below from Communities that Care: Action for Drug Abuse Prevention.

Community Climate – Risk Factors

Laws and Norms Favorable to Drugs
Definition: The degree to which respondents think youth in their neighborhood would be caught by the police if they smoked marijuana, drank alcohol, or carried a handgun and the extent to which they feel parents in the neighborhood would think it's wrong for the student to smoke cigarettes or marijuana or to drink alcohol.
Questions: *Q93: If a kid smoked marijuana in your neighborhood, would he or she be caught by the police?*
Q95: If a kid drank some beer, wine or hard liquor (for example, vodka, whiskey, or gin) in your neighborhood, would he or she be caught by the police?
Q96: If a kid carried a handgun without permission in your neighborhood would he or she be caught by the police?
Q103a-c: How wrong would most adults (over 21) in your neighborhood think it is for kids your age: to use marijuana? to drink alcohol? to smoke cigarettes?

Reasoning: Research has shown that legal restrictions on alcohol and tobacco use, such as raising the legal drinking age, restricting smoking in public places, and increased taxation have been followed by decreases in consumption. Moreover, national surveys of high school seniors have shown that shifts in normative attitudes toward drug use have preceded changes in prevalence of use.

Perceived Availability of Drugs

Definition: The degree to which respondents think it is easy for youths to get alcohol, cigarettes, and illicit drugs.

Questions: *Q87: If you wanted to get some beer, wine or hard liquor (for example, vodka, whiskey, or gin), how easy would it be for you to get some?*
Q88: If you wanted to get some cigarettes, how easy would it be for you to get some?
Q94: If you wanted to get a drug like cocaine, LSD, or amphetamines, how easy would it be for you to get some?
Q98: If you wanted to get some marijuana, how easy would it be for you to get some?

Reasoning: The availability of cigarettes, alcohol, marijuana, and other illegal drugs has been related to use of these substances by adolescents.

Perceived Availability of Handguns

Definition: The degree to which respondents think it is easy for youths to get handguns.

Questions: *Q97: If you wanted to get a handgun without permission, how easy would it be for you to get one?*

Reasoning: The availability of handguns is related to a higher risk of crime and substance use by adolescents.

Family Climate – Risk Factors

Poor Family Management

Definition: The extent to which respondents report that their parents would catch them if they drank liquor, carried a handgun, or skipped school, as well as the extent to which respondents report that there are clear family rules, that parents know the whereabouts of their children, that there are rules about alcohol and drug use, and that parents monitor homework completion.

Questions: *Q117: The rules in my family are clear.*
Q119: When I am not at home, one of my parents knows where I am and whom I am with.
Q120: If you drank some beer, wine or liquor (for example, vodka, whiskey, or gin) without your parents' permission, would you be caught by your parents?
Q121: My family has clear rules about alcohol and drug use.
Q122: If you carried a handgun without your parents' permission, would you be caught by your parents?
Q123: If you skipped school, would you be caught by your parents?
Q135: My parents ask if I've gotten my homework done.
Q136: Would your parents know if you did not come home on time?

Reasoning: Parents' use of inconsistent and/or unusually harsh or severe punishment with their children places them at higher risk for substance use and other problem behaviors. Parents' failure to provide clear expectations and to monitor their children's behavior makes it more likely that they will engage in drug abuse whether or not there are family drug problems.

APPENDIX B – RISK & PROTECTIVE FACTOR DEFINITIONS

Family History of Antisocial Behavior
Definition: Respondents reporting whether they have siblings that drink, smoke marijuana, smoke cigarettes, have been expelled, or have taken a handgun to school; and the number of adults they know who have used and/or dealt drugs, gotten drunk or high, or have engaged in illegal activities.
Questions: *Q104a-d: About how many adults (over 21) have you known personally who in the past year have: used marijuana, crack, cocaine, or other drugs? sold or dealt drugs? done other things that could get them in trouble with the police like stealing, selling stolen goods, mugging or assaulting others, etc.? gotten drunk or high?*
                Q116a-e: Have any of your brothers or sisters ever: drunk beer, wine or hard liquor (for example, vodka, whiskey or gin)? smoked marijuana? smoked cigarettes? taken a handgun to school without permission? been suspended or expelled from school?
                Q118: Has anyone in your family ever had a severe alcohol or drug problem?
Reasoning: When children are raised in a family with a history of problem behaviors (e.g., violence and/or substance use), the children are more likely to engage in these behaviors.

Parental Attitudes Favor Drug Use
Definition: The degree to which respondents report their parents would feel it is wrong if they (the respondents) drink liquor, smoke marijuana, or smoke cigarettes.
Questions: *Q113a-c: How wrong do your parents feel it would be for <u>you</u> to: drink beer, wine or hard liquor (for example, vodka, whiskey or gin) regularly? smoke cigarettes? smoke marijuana?*
Reasoning: Youth are at increased risk of using these substances unless they perceive that their parents would consider it <u>very wrong</u> for them to do so.

Parental Attitudes Favor Antisocial Behavior
Definition: The degree to which respondents report their parents would feel it is wrong if they (the respondents) steal, draw graffiti, or fight.
Questions: *Q113d-f: How wrong do your parents feel it would be for you to: steal something worth more than $5? draw graffiti, or write things or draw pictures on buildings or other property (without the owner's permission)? pick a fight with someone?*
Reasoning: Youth are at increased risk of using substances and participating in other prohibited behaviors unless they perceive that their parents would consider it <u>very wrong</u> for them to do so.

School Climate – Risk Factors

Lower Academic Achievement
Definition: A respondent's grade-based performance.
Questions: *Q8: Putting them all together, what were your grades like last year?*
                Q18: Are your school grades better than the grades of most students in your class?
Reasoning: Beginning in the late elementary grades (grades 4-6), academic failure increases the risk of both drug abuse and delinquency. It appears that the experience of failure itself, for whatever reasons, increases the risk of problem behaviors.

Low Commitment to School
Definition: The degree to which students find school and homework interesting and important.
Questions: *Q9: During the last four weeks how many whole days of school have you missed because you skipped or "cut"?*
Q20: How often do you feel that the schoolwork you are assigned is meaningful and important?
Q21: How interesting are most of your courses to you?
Q22: How important do you think the things you are learning in school are going to be for your later life?
Q23a-c: Now thinking over the past year in school, how often did you: enjoy being in school? hate being in school? try to do your best work in school?
Reasoning: Surveys of high school seniors have shown that the use of hallucinogens, cocaine, heroin, stimulants, sedatives, or non-medically prescribed tranquilizers is significantly lower among students who expect to attend college than among those who do not. Factors such as liking school, spending time on homework, and perceiving the coursework as relevant are also negatively related to drug use.

Peer-Individual Climate – Risk Factors

Rebelliousness
Definition: The extent to which respondents report disregarding rules.
Questions: *Q31: I ignore rules that get in my way.*
Q34: I do the opposite of what people tell me, just to get them mad.
Q48: I like to see how much I can get away with.
Reasoning: Young people who do not feel part of society, are not bound by rules, don't believe in trying to be successful or responsible, or who take an active rebellious stance toward society, are at higher risk of abusing drugs. In addition, high tolerance for deviance, a strong need for independence, and normlessness have all been linked with drug use.

Early Initiation of Drug Use
Definition: The age at which respondents first try a variety of negative behaviors, including smoking marijuana, drinking alcohol, etc.
Questions: *Q29a-d: How old were you when you first: smoked marijuana? smoked a cigarette, even just a puff? had more than a sip or two of beer, wine or hard liquor (for example, vodka, whiskey, or gin)? began drinking alcoholic beverages regularly, that is, at least once or twice a month?*
Reasoning: Early onset of drug use predicts misuse of drugs. The earlier the onset of any drug use, the greater the involvement in other drug use and the greater frequency of use. Onset of drug use prior to the age of 15 is a consistent predictor of drug abuse, and a later age of onset of drug use has been shown to predict lower drug involvement and a greater probability of discontinuation of use.

Attitudes Favorable to Antisocial Behavior
Definition: The extent to which respondents themselves feel that engaging in various anti-social behaviors for youths their age is appropriate.
Questions: *Q30a-e: How wrong do you think it is for someone your age to: take a handgun to school without permission? steal anything worth more than $5? pick a fight with someone? attack someone with the idea of seriously hurting them? stay away from school all day when their parents think they are at school?*

Reasoning: Young people who accept or condone antisocial behavior are more likely to engage in a variety of problem behaviors, including drug use.

Attitudes Favorable to Drug Use
Definition: The extent to which respondents themselves feel that drinking, smoking, or taking illicit drugs for youths their age is appropriate.
Questions: *Q30f-i: How wrong do you think it is for someone your age to: drink beer, wine or hard liquor (for example, vodka, whiskey or gin) regularly? smoke cigarettes? smoke marijuana? use LSD, cocaine, amphetamines or another illegal drug?*
Reasoning: Initiation of use of any substance is preceded by values favorable to its use. During the elementary school years, most children express anti-drug, anti-crime, and pro-social attitudes and have difficulty imagining why people use drugs. However, in middle school, as more youth are exposed to others who use drugs, their attitudes often shift toward greater acceptance of these behaviors. Youth who express positive attitudes toward drug use are at higher risk for subsequent drug use.

Perceived Risks of Drug Use
Definition: The extent to which respondents themselves feel that people risk harming themselves if they smoke cigarettes, drink or smoke marijuana.
Questions: *Q53a-d: How much do you think people risk harming themselves (physically or in other ways) if they: smoke one or more packs of cigarettes per day? try marijuana once or twice? smoke marijuana regularly? take one or two drinks of an alcoholic beverage (beer, wine, or hard liquor) nearly every day?*
Reasoning: Young people who do not perceive drug use to be risky are far more likely to engage in drug use.

Interaction with Antisocial Peers
Definition: The number of a respondent's friends who engage in anti-social activities.
Questions: *Q28h, j, k, m, n, o: Think of your four best friends. How many in the past year have: been suspended from school? carried a handgun without permission? sold illegal drugs? stolen or tried to steal a motor vehicle such as a car or motorcycle? been arrested? dropped out of school?*
Reasoning: Young people who associate with peers who engage in problem behaviors are at higher risk for engaging in antisocial behavior themselves.

Peers' Drugs Use
Definition: The number of a respondent's friends who take drugs, drink alcohol and smoke cigarettes.
Questions: *Q28b, c, e, g: Think of your four best friends. How many in the past year have: smoked cigarettes? tried beer, wine or hard liquor (for example, vodka, whiskey or gin) when their parents didn't know about it? used marijuana? used LSD, cocaine, amphetamines, or other illegal drugs?*
Reasoning: Young people who associate with peers who engage in alcohol or substance abuse are much more likely to engage in the same behavior. Peer drug use has consistently been found to be among the strongest predictors of substance use among youth. Even when young people come from well-managed families and do not experience other risk factors, spending time with friends who use drugs greatly increases the risk of that problem developing.

Sensation Seeking
Definition: The extent to which respondents report that they do dangerous and crazy things.
Questions: *Q36a-c: How many times have you done the following things: Done crazy things even if they are a little dangerous? Done something dangerous because someone dared you to do it? Done what feels good no matter what?*
Reasoning: Young people who seek out opportunities for dangerous, risky behavior in general are at higher risk for participating in drug use and other problem behaviors.

Rewards for Antisocial Involvement
Definition: The extent to which respondents feel they would be considered cool if they smoked cigarettes, drank, smoked marijuana, or carried a handgun.
Questions: Q40a, c, e, g: What are the chances you would be seen as cool if you: smoked cigarettes? began drinking alcoholic beverages regularly, that is, at least once or twice a month? smoked marijuana? carried a handgun without permission?
Reasoning: Young people who receive rewards for their antisocial behavior are at higher risk for engaging further in antisocial behavior and substance use.

Intentions to Use Drugs
Definition: The extent to which respondents indicated that they plan to use cigarettes, alcohol, or marijuana as adults.
Questions: *Q105a-c: Sometimes we don't know what we will do as adults, but we may have an idea. Please answer how true these statements may be for you. When I am an adult: I will smoke cigarettes. I will drink beer, wine, or liquor. I will smoke marijuana.*
Reasoning: Intent to use cigarettes, alcohol, and/or marijuana as an adult is a strong predictor of future drug use and antisocial behaviors.

Community Climate – Protective Factors

Community Opportunities for Involvement
Definition: Perceived opportunities to engage in pro-social activities in the community and to engage with adults.
Questions: *Q107: There are lots of adults in my neighborhood I could talk to about something important.*
Q110a-e: Which of the following activities for people your age are available in your community: sports teams? scouting? boys and girls clubs? 4-H clubs? service clubs?
Reasoning: When opportunities are available in a community for positive participation, children are less likely to engage in substance use and other problem behaviors.

Community Rewards for Involvement
Definition: The degree to which respondents feel people in their neighborhood recognize, acknowledge, and support their positive behaviors.
Questions: *Q106: My neighbors notice when I am doing a good job and let me know about it.*
Q109: There are people in my neighborhood who are proud of me when I do something well.
Q112: There are people in my neighborhood who encourage me to do my best.
Reasoning: Rewards for positive participation in activities helps children bond to the community, thus lowering their risk for substance use.

APPENDIX B – RISK & PROTECTIVE FACTOR DEFINITIONS

Family Climate – Protective Factors

Family Attachment
Definition: The extent to which respondents feel close to and can share openly with their mother and father.
Questions: *Q125: Do you feel very close to your mother?*
              Q126: Do you share your thoughts and feelings with your mother?
              Q129: Do you share your thoughts and feelings with your father?
              Q133: Do you feel very close to your father?
Reasoning: Young people who feel that they are a valued part of their family are less likely to engage in substance use and other problem behaviors.

Family Opportunities for Pro-social Involvement
Definition: The extent to which respondents participate in family decision making, have opportunities to do fun things with their parents, and can share problems with their parents.
Questions: *Q127: My parents ask me what I think before most family decisions affecting me are made.*
              Q132: If I had a personal problem, I could ask my mom or dad for help.
              Q134: My parents give me lots of chances to do fun things with them.
Reasoning: Young people who are exposed to more opportunities to participate meaningfully in the responsibilities and activities of the family are less likely to engage in drug use and other problem behaviors.

Family Rewards for Pro-social Involvement
Definition: The extent to which respondents report their parents acknowledging and praising them for good things they do, and that they enjoy spending time with their parents.
Questions: *Q124: My parents notice when I am doing a good job and let me know about it.*
              Q128: How often do your parents tell you they're proud of you for something you've done?
              Q130: Do you enjoy spending time with your mother?
              Q131: Do you enjoy spending time with your father?
Reasoning: When parents, siblings, and other family members praise, encourage, and attend to things done well by their child, children are less likely to engage in substance use and problem behaviors.

School Climate – Protective Factors

School Opportunities for Pro-social Involvement
Definition: The degree to which respondents feel that they can interact with teachers and can participate in school-related activities.
Questions: *Q10: In my school, students have lots of chances to help decide things like class activities and rules.*
              Q11: Teachers ask me to work on special classroom projects.
              Q13: There are lots of chances for students in my school to get involved in sports, clubs, and other school activities outside of class.
              Q14: There are lots of chances for students in my school to talk with a teacher one-on-one.
              Q19: There are lots of chances to be part of class discussions or activities.

Reasoning: When young people are given more opportunities to participate meaningfully in important activities at school, they are less likely to engage in drug use or problem behaviors.

School Rewards for Pro-social Involvement

Definition: The degree to which respondents feel acknowledged by teachers and their parents relative to their (the students) school involvement and performance.

Questions: *Q12: My teacher(s) notices when I am doing a good job and lets me know about it.*
Q15: I feel safe at my school.
Q16: The school lets my parents know when I have done something well.
Q17: My teachers praise me when I work hard in school.

Reasoning: When young people are recognized and rewarded for their contributions at school, they are less likely to be involved in substance use and other problem behaviors.

Peer-Indiv idual Climate – Protective Factors

Social Skills

Definition: Scenarios that require the respondent to make a decision about the best, or most pro-social option.

Questions: *Q41: You're looking at CDs in a music store with a friend. You look up and see her slip a CD under her coat. She smiles and says "which one do you want? Go ahead, take it while nobody's around." There is nobody in sight, no employees and no other customers. What would you do now?*
Q42: It's 8:00 on a weeknight and you are about to go over to a friend's home when your mother asks you where you are going. You say, "Oh, just going to go hang out with some friends." She says, "No, you'll just get into trouble if you go out. Stay home tonight." What would you do now?
Q43: You are visiting another part of town, and you don't know any of the people your age there. You are walking down the street, and some teenager you don't know is walking toward you. He is about your size, and as he is about to pass you, he deliberately bumps into you and you almost lose your balance. What would you say or do?
Q44: You are at a party at someone's house, and one of your friends offers you a drink containing alcohol. What would you say or do?

Reasoning: Young people who are socially competent and engage in positive interpersonal relations with their peers are less likely to use drugs and engage in other problem behaviors.

Belief in the Moral Order

Definition: The degree to which respondents feel it is OK to fight, steal, cheat and be dishonest.

Questions: *Q32: It is all right to beat up people if they start the fight.*
Q33: It is important to be honest with your parents, even if they become upset or you get punished.
Q35: I think it is okay to take something without asking if you can get away with it.
Q47: I think sometimes it's okay to cheat at school.

Reasoning: Young people who have a belief in what is "right" or "wrong" are less likely to use drugs.

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